NUS CORPORATION

1927 LAKESIDE PARKWAY
SUITE 614
TUCKER, GEORGIA 30084
404-938-7710

#1712

C-586-6-0-20

June 6, 1990

Mr. A. R. Hanke
Site Investigation and Support Branch
Waste Management Division
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Date: ____________
Site Disposition: ____________
EPA Project Manager: ____________

Subject: Screening Site Inspection Phase I
Acme Plastics, Inc.
Fort Lauderdale, Broward County, Florida
EPA ID No. FLD981026933
TDD No. F4-9002-19

Dear Mr. Hanke:

FIT 4 conducted a Screening Site Inspection of Acme Plastics, Inc. located in Fort Lauderdale, Broward County, Florida. Phase I of the inspection included a review of EPA and state file material, completion of a target survey, and a drive-by reconnaissance of the facility and surrounding area.

Acme Plastics, Inc. is located on N.W. 57th Court in Fort Lauderdale, Florida. The facility was owned and operated by Acme Plastics, Inc. from 1974 to 1982 (Ref. 1). Presently, New River Cabinet and Fixture, Inc. is at the Acme Plastics' location at the site (Ref. 2). While in operation, the facility manufactured plastic letters for the sign industry (Ref. 1).

Waste from the injection molding of plastic letters included styrene, polypropylene and acrylics, (types of plastics), hydraulic oil, and methyl ethyl ketone. Plastic scraps were either reused or baled for scrap resale. There is no information about the disposal method of either the hydraulic oil or the methyl ethyl ketone. Cooling water for the injection molding presses came from a closed-loop cooling system and involved a supply and discharge well system. In 1975, the rinsing of painted silk screens was done on the facility property. The rinsewater, paint, and cleaning fluid drained into a storm sewer (Ref. 1).

From 1974 until 1982, the Florida Department of Environmental Regulation inspected Acme Plastics, Inc. on a regular basis. In 1981, a water sample was taken at a point before it entered the discharge well. It was found to be in compliance with groundwater discharge standards (Ref. 1).

The facility area is in the Atlantic Coastal Ridge region of the Coastal Plain Physiographic Province (Ref. 3, plate-C). The area is a low, almost flat plain with low ridges near the eastern shore. There are very few natural streams, but rather a network of canals which provide drainage. The average elevation for Broward County is 2 to 10 feet above sea level. Surface soils in the area primarily consist of fine sands (Ref. 4, pp. 1, 44, 45). In southern Florida, at least one-fourth of the limestone rock is cavernous with interconnecting solution cavities, which are generally filled with sand (Ref. 5, p. 133).

Mr. A.R. Hanke
Environmental Protection Agency
TDD No. F4-9002-19
June 6, 1990 - page two

The climate is subtropical and humid with an average temperature of 75.4° F and a net annual rainfall of 13 inches (Refs. 4, pp. 1, 42; 6, pp. 43, 63). The 1-year, 24-hour rainfall is 4.5 inches (Ref. 7, p. 93).

The Biscayne Aquifer is a highly permeable, wedge-shaped, unconfined aquifer, that is about 300 feet thick in Eastern Broward County and thins to the west. The Biscayne Aquifer underlying the facility consists of the Pamlico Sand (quartz sand), Anastasia Formation (sandstone and limestone), Key Largo limestone (coralline reef rock), and the Tamiami Formation (limestones, sands, and marls). Recharge to the Biscayne Aquifer is primarily through rainfall. Downward infiltration of rain water is rapid due to sandy soils along the coast and also because of the presence of solution cavities in the limestone. The water table slopes toward the coast; however, locally the direction of flow may be influenced by drainage canals and any nearby pumping wellfields (Refs. 8, sheets 1, 2; 9, pp. 3, 15). Water table depth around the Acme Plastics' facility is about 4 feet below land surface (bls) (Ref. 10, pp. 30, 31).

Wells completed in the aquifer are drilled to depths of 40 to 100 feet bls and provide all the municipal water supplies for Broward County. The nearest municipal well is located 1 mile northeast of the facility. Transmissivity of the Biscayne Aquifer ranges from 5.0×10^5 to 2.0×10^6 ft^2/day per foot, and the storage coefficient ranges from 0.047 to 0.247 (Ref. 11, pp. 3, 8). Permeability ranges from 50,000 to 70,000 gal/day/ft^2) (Ref. 10, p. 39). The hydraulic conductivity of the Biscayne Aquifer ranges from 1 to 1×10^{-3} cm/sec (Ref. 11, p. 29).

Below the Biscayne Aquifer is the Hawthorn Formation, a thick, confining unit consisting of sand and clay. It separates the Biscayne Aquifer from the Floridan Aquifer and is about 300 feet thick. The Floridan Aquifer System is a sequence of carbonate rock of generally high permeability that are hydraulically connected in varying degrees. It consists of an upper and a lower aquifer with a middle confining unit. The aquifer is about 1500 feet thick in this area and is unused as a drinking water source due to its high salinity (Refs. 12, pp. 4, 5; 13, pp. A7, A8).

All of the residences within 3 miles of Acme Plastics obtain water from municipal water companies (Refs. 14, 15). The Broward County Water Department serves 14,240 connections from two wellfields which consist of a total of 12 wells (Ref. 15). These wellfields are located approximately 1 mile from the Acme Plastics' facility (Ref. 14). The Fort Lauderdale Water Department serves 56,000 connections from 43 wells located approximately 3 miles from the facility (Refs. 14, 15). The residents not served by either of these water departments obtain their potable water from water departments, whose wells are located more than 4 miles from the facility. The nearest well is in the Broward County wellfield and is located approximately 4,000 feet northeast of the facility (Ref. 14). There are two water departments with wellfields located between 3 and 4 miles of Acme Plastics, Inc. (Ref. 2). The Broadview Water Department serves 2,185 connections from three wells. The Pompano Beach Water Department serves 16,900 connections from two wellfields with a total of 22 wells (Ref. 15).

Surface water runoff from the facility flows north approximately 500 feet to a large sinkhole. As this is a closed basin, the surface water pathway ends here (Ref. 14). There are several endangered and threatened species found in the state of Florida. The gopher tortoise (Gopherus polyphemus) is found in Broward County (Ref. 16).

A facility reconnaissance was conducted at Acme Plastics, Incorporated in March 1990 The property adjacent to the facility is industrial except for a vacant lot to the south (Ref. 2). The land surrounding the facility is a mixture of residential, commercial, and industrial (Ref 14). The nearest residence is located approximately 1,000 feet to the east (Ref. 14). The facility is not fenced and is easily accessible to the public (Ref. 2).

Based on this evaluation, no further remedial action planned is recommended for Acme Plastics, Incorporated. If you have any questions regarding this assessment, please contact me at NUS Corporation.

Very truly yours,

Stephany Fine

Stephany Fine
Project Manager

Approved:

SF/gwn

Enclosures

cc: John McKeown

REFERENCES

1. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) and attachments for Acme Plastics, Incorporated. Filed by Willard Murray, E.C. Jordan Company, November 7, 1985.

2. NUS Corporation Field Logbook No. F4-2130 for Acme Plastics, Incorporated, TDD No. F4-9002-19. Documentation of facility reconnaissance March 28, 1990.

3. William A. White, The Geomorphology of the Florida Peninsula, Geological Bulletin No. 51 (Tallahassee, Florida: Bureau of Geology, 1970).

4. U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Broward County, Florida (July 1976).

5. Gerald G. Parker et al., Water Resources of Southeastern Florida, Water-Supply Paper No. 1255 (U.S. Geological Survey, 1955).

6. U.S. Department of Commerce, Climatic Atlas of the United States (Washington, D.C.: GPO, June 1968) Reprint: 1983, National Oceanic and Atmospheric Administration.

7. U.S. Department of Commerce, Rainfall Frequency Atlas of the United States, Technical Paper No. 40 (Washington, D.C.: GPO, 1961).

8. Carmen R. Causaras, Geology of the Surficial Aquifer System, Broward County, Florida, Water Resources Investigations Report 84-4068 (U.S. Geological Survey, 1985).

9. H. Klein and J.E. Hull, Biscayne Aquifer, Southeast Florida, Water-Resources Investigations 78-107 (U.S. Geological Survey, 1978).

10. Melvin C. Schroeder, Howard Klein, and Nevin D. Hoy, Biscayne Aquifer of Dade and Broward Counties, Report of Investigations No. 17 (U.S. Geological Survey, 1958).

11. R.A. Freeze and J.A. Cherry, Groundwater (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1979).

12. Fredrick W. Meyer, Evaluation of Hydraulic Characteristics of a Deep Artesian Aquifer from Natural Water-Level Fluctuations,l Miami, Florida, Report of Investigations No. 75 (U.S. Geological Survey, 1974).

13. Richard H. Johnston and Peter W. Bush, Summary of the Hydrology of the Floridan Aquifer System in Florida and in Parts of Georgia, South Carolina, and Alabama, Professional Paper 1403-A (U.S. Geological Survey, 1988).

14. U.S. Geological Survey, 7.5 minute series Topographic Quadrangle Maps of Florida: Boca Raton 1962 (Photorevised 1983), Fort Lauderdale North 1962 (PR 1983), Pompano Beach 1962 (PR 1983), West Dixie Bend 1962 (PR 1983), scale 1:24,000.

15. W. Smitherman, interoffice correspondence to K.D. Pass, NUS Corporation, March 22, 1990. Subject: Municipal water systems for Broward County, Florida.

16. Curtis Morgan, "Road Plan Saves Tortoise Habitat," The Miami Herald, April 26, 1990.

Site Inspection Report

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Acme Plastics Inc.	750 NW 57th Ct.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST.
Fort Lauderdale	FL	33309	Broward	011	17

09 COORDINATES: LATITUDE 26 12 15. LONGITUDE 080 08 57.

10 TYPE OF OWNERSHIP (Check one): ☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION: 11 10 81 (MONTH DAY YEAR)

02 SITE STATUS: ☐ ACTIVE ☒ INACTIVE

03 YEARS OF OPERATION: 1974 (BEGINNING YEAR) 1982 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply): ☐ A. EPA ☐ B. EPA CONTRACTOR ________ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ________ (Name of firm) ☒ E. STATE ☐ F. STATE CONTRACTOR ________ (Name of firm) ☐ G. OTHER ________ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
			( )

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT		

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Eric Nuzie	FDER	(904) 488-0190

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Stephany Fine		NUS Corp.	(404) 938-7710	4-16-90 (MONTH DAY YEAR)

CERCLA ELIGIBILITY QUESTIONNAIRE

Site Name: Acme Plastics Incorporated

City: Fort Lauderdale State: Florida

EPA I.D. Number: FLD981026933

I. CERCLA ELIGIBILITY

	YES	NO
Did the facility cease operations prior to November 19, 1980?	___	✓

If answer YES, STOP, facility is probably a CERCLA site
If answer NO, Continue to Part II

II. RCRA ELIGIBILITY

	YES	NO
Did the facility file a RCRA Part A application?	___	✓
If YES:		
1) Does the facility currently have interim status?	___	___
2) Did the facility withdraw its Part A application?	___	___
3) Is the facility a known or possible protective filer? (facility filed in error)	___	___
4) Type of facility: Generator___ Transporter___ Recycler___ TSD (Treatment/Storage/Disposal)___		
Does the facility have a RCRA operating or post closure permit?	___	✓
Is the facility a late (after 11/19/80) or non-filer that has been identified by the EPA or the State? (facility did not know it needed to file under RCRA)	___	✓

If all answers to questions in Part II are NO, STOP, the facility is a CERCLA eligible site.

If answer to #2 or #3 is YES, STOP, the facility is a CERCLA eligible site.

If #2 and #3 are NO and any OTHER answer is YES, site is RCRA, continue to Part III.

III: RCRA SITES ELIGIBLE FOR NPL

	YES	NO
Has the facility owner filed for bankruptcy under federal or state laws?	___	___
Has the facility lost RCRA authorization to operate or shown probable unwillingness to carry out corrective action?	___	___
Is the facility a TSD that converted to a generator, transporter or recycler facility after November 19, 1980?	___	___

RECONNAISSANCE CHECKLIST FOR HRS2 CONCERNS

Instructions: Obtain as much "up front" information as possible prior to conducting fieldwork. Complete the form in as much detail as you can, providing attachments as necessary. Cite the source for all information obtained.

Site Name: Acme Plastics, Inc.
City, County, State: Fort Lauderdale, Broward County, Florida
EPA ID No.: FLD981026933
Person responsible for form: Stephany Fine
Date: April 12, 1990

Air Pathway

Describe any potential air emission sources onsite: None

Identify any sensitive environments within 4 miles: None

Identify the maximally exposed individual (nearest residence or regularly occupied building - workers do count): Workers on site are the maximally exposed individuals.

Groundwater Pathway

Identify any areas of karst terrain: The entire 4-mile radius around the site is karst terrain.

Identify additional population due to consideration of wells completed in overlying aquifers to the AOC: None

Do significant targets exist between 3 and 4 miles from the site? No

Is the AOC a sole source aquifer according to Safe Drinking Water Act? (i.e. is the site located in Dade, Broward, Volusia, Putnam, or Flagler County, Florida): Yes, the site is located in Broward County.

Surface Water Pathway

Are there intakes located on the extended 15-mile migration pathway? No, surface water flows to a sinkhole near the site, ending the pathway.

Are there recreational areas, sensitive environments, or human food chain targets (fisheries) along the extended pathway? No

Onsite Exposure Pathway

Is there waste or contaminated soil onsite at 2 feet below land surface or higher? No

Is the site accessible to non-employees (workers do not count)? Yes, the site is not fenced.

Are there residences, schools, or day care centers onsite or in close proximity? Yes, a school is located < 1 mile from the site.

Are there barriers to travel (e.g., a river) within one mile? No

RECONNAISSANCE CHECKLIST FOR HRS2 CONCERNS

Instructions: Obtain as much "up front" information as possible prior to conducting fieldwork. Complete the form in as much detail as you can, providing attachments as necessary. Cite the source for all information obtained.

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EPA ID No.: FLD981026933
Person responsible for form: Stephany Fine
Date: April 12, 1990

Air Pathway

Describe any potential air emission sources onsite: None

Identify any sensitive environments within 4 miles: None

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Identify any areas of karst terrain: None

Identify additional population due to consideration of wells completed in overlying aquifers to the AOC: None

Do significant targets exist between 3 and 4 miles from the site? No

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Is the site accessible to non-employees (workers do not count)? Yes, the site is not fenced.

Are there residences, schools, or day care centers onsite or in close proximity? Yes, a school is located < 1 mile from the site.

Are there barriers to travel (e.g., a river) within one mile? No

CERCLA ELIGIBILITY QUESTIONNAIRE

Site Name: Acme Plastics Incorporated

City: Fort Lauderdale State: Florida

EPA I.D. Number: FLD981026933

I. CERCLA ELIGIBILITY

	YES	NO
Did the facility cease operations prior to November 19, 1980?	___	✓

If answer YES, STOP, facility is probably a CERCLA site
If answer NO, Continue to Part II

II. RCRA ELIGIBILITY

	YES	NO
Did the facility file a RCRA Part A application?	___	✓
If YES:		
1) Does the facility currently have interim status?	___	___
2) Did the facility withdraw its Part A application?	___	___
3) Is the facility a known or possible protective filer? (facility filed in error)	___	___
4) Type of facility: Generator___ Transporter___ Recycler___ TSD (Treatment/Storage/Disposal)___		
Does the facility have a RCRA operating or post closure permit?	___	✓
Is the facility a late (after 11/19/80) or non-filer that has been identified by the EPA or the State? (facility did not know it needed to file under RCRA)	___	✓

If all answers to questions in Part II are NO, STOP, the facility is a CERCLA eligible site.

If answer to #2 or #3 is YES, STOP, the facility is a CERCLA eligible site.

If #2 and #3 are NO and any OTHER answer is YES, site is RCRA, continue to Part III.

III: RCRA SITES ELIGIBLE FOR NPL

	YES	NO
Has the facility owner filed for bankruptcy under federal or state laws?	___	___
Has the facility lost RCRA authorization to operate or shown probable unwillingness to carry out corrective action?	___	___
Is the facility a TSD that converted to a generator, transporter or recycler facility after November 19, 1980?	___	___

HAZARD RANKING SYSTEM SCORING SUMMARY

FOR

ACME PLASTICS, INCORPORATED
EPA SITE NUMBER FLD981026933
FORT LAUDERDALE
BROWARD COUNTY, FL
EPA REGION: 4

SCORE STATUS: IN PREPARATION

SCORED BY STEPHANY FINE
OF NUS CORPORATION
ON 04/12/90

DATE OF THIS REPORT: 07/12/90
DATE OF LAST MODIFICATION: 07/12/90

GROUND WATER ROUTE SCORE :	36.53
SURFACE WATER ROUTE SCORE:	3.80
AIR ROUTE SCORE :	0.00
MIGRATION SCORE :	21.23

HRS GROUND WATER ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0
2. ROUTE CHARACTERISTICS			
DEPTH TO WATER TABLE	4 FEET		
DEPTH TO BOTTOM OF WASTE	6 FEET		
DEPTH TO AQUIFER OF CONCERN	-2 FEET	3	6
PRECIPITATION	64.0 INCHES		
EVAPORATION	51.0 INCHES		
NET PRECIPITATION	13.0 INCHES	2	2
PERMEABILITY	1.0X10-2 CM/SEC	3	3
PHYSICAL STATE		3	3
TOTAL ROUTE CHARACTERISTICS SCORE:			14
3. CONTAINMENT		2	2
4. WASTE CHARACTERISTICS			
TOXICITY/PERSISTENCE:STYRENE			9
WASTE QUANTITY CUBIC YDS	2501		
DRUMS	0		
GALLONS	0		
TONS	0		
TOTAL	2501 CU. YDS	8	8
TOTAL WASTE CHARACTERISTICS SCORE:			17
5. TARGETS			
GROUND WATER USE		3	9
DISTANCE TO NEAREST WELL	4000 FEET		
AND	MATRIX VALUE	35	35
TOTAL POPULATION SERVED	266912 PERSONS		
NUMBER OF HOUSES	0		
NUMBER OF PERSONS	0		
NUMBER OF CONNECTIONS	70240		
NUMBER OF IRRIGATED ACRES	0		
TOTAL TARGETS SCORE:			44

GROUND WATER ROUTE SCORE (Sgw) = 36.53

HRS SURFACE WATER ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0
2. ROUTE CHARACTERISTICS			
SITE LOCATED IN SURFACE WATER	NO		
SITE WITHIN CLOSED BASIN	NO		
FACILITY SLOPE	1.0 %		
INTERVENING SLOPE	1.0 %	0	0
24-HOUR RAINFALL	4.5 INCHES	3	3
DISTANCE TO DOWN-SLOPE WATER	500 FEET	3	6
PHYSICAL STATE	3		3
TOTAL ROUTE CHARACTERISTICS SCORE:			12
3. CONTAINMENT	2		2
4. WASTE CHARACTERISTICS			
TOXICITY/PERSISTENCE:STYRENE			9
WASTE QUANTITY CUBIC YDS	2501		
DRUMS	0		
GALLONS	0		
TONS	0		
TOTAL	2501 CU. YDS	8	8
TOTAL WASTE CHARACTERISTICS SCORE:			17
5. TARGETS			
SURFACE WATER USE		2	6
DISTANCE TO SENSITIVE ENVIRONMENTS		0	0
COASTAL WETLANDS	NONE		
FRESH-WATER WETLANDS	NONE		
CRITICAL HABITAT	NONE		
DISTANCE TO STATIC WATER	500 FEET		
DISTANCE TO WATER SUPPLY INTAKE	0 FEET		
AND	MATRIX VALUE	0	0
TOTAL POPULATION SERVED	0		
NUMBER OF HOUSES	0		
NUMBER OF PERSONS	0		
NUMBER OF CONNECTIONS	0		
NUMBER OF IRRIGATED ACRES	0		
TOTAL TARGETS SCORE:			6

SURFACE WATER ROUTE SCORE (Ssw) = 3.80

HRS AIR ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0

2. WASTE CHARACTERISTICS

REACTIVITY: MATRIX VALUE

INCOMPATIBILITY

TOXICITY

WASTE QUANTITY CUBIC YARDS
DRUMS
GALLONS
TONS

TOTAL

TOTAL WASTE CHARACTERISTICS SCORE: N/A

3. TARGETS

POPULATION WITHIN 4-MILE RADIUS
0 to 0.25 mile
0 to 0.50 mile
0 to 1.0 mile
0 to 4.0 miles

DISTANCE TO SENSITIVE ENVIRONMENTS
COASTAL WETLANDS
FRESH-WATER WETLANDS
CRITICAL HABITAT

DISTANCE TO LAND USES
COMMERCIAL/INDUSTRIAL
PARK/FOREST/RESIDENTIAL
AGRICULTURAL LAND
PRIME FARMLAND
HISTORIC SITE WITHIN VIEW?

TOTAL TARGETS SCORE: N/A

AIR ROUTE SCORE (Sa) = 0.00

HAZARD RANKING SYSTEM SCORING CALCULATIONS
FOR
SITE: ACME PLASTICS, INCORPORATED
AS OF 07/12/90

GROUND WATER ROUTE SCORE

ROUTE CHARACTERISTICS		14
CONTAINMENT	X	2
WASTE CHARACTERISTICS	X	17
TARGETS	X	44

= 20944 /57,330 X 100 = 36.53 = S_{gw}

SURFACE WATER ROUTE SCORE

ROUTE CHARACTERISTICS		12
CONTAINMENT	X	2
WASTE CHARACTERISTICS	X	17
TARGETS	X	6

= 2448 /64,350 X 100 = 3.80 = S_{sw}

AIR ROUTE SCORE

OBSERVED RELEASE 0 /35,100 X 100 = 0.00 = S_{air}

SUMMARY OF MIGRATION SCORE CALCULATIONS

	S	S^2
GROUND WATER ROUTE SCORE (S_{gw})	36.53	1334.44
SURFACE WATER ROUTE SCORE (S_{sw})	3.80	14.44
AIR ROUTE SCORE (S_{air})	0.00	0.00
$S^2_{gw} + S^2_{sw} + S^2_{air}$		1348.88
$\sqrt{(S^2_{gw} + S^2_{sw} + S^2_{air})}$		36.73
$S_M = \sqrt{(S^2_{gw} + S^2_{sw} + S^2_{air})}/1.73$		21.23

Site Inspection Report

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): Acme Plastics Inc.	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 750 NW 57th Ct.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Fort Lauderdale	FL	33309	Broward	011	17

09 COORDINATES: LATITUDE 26 12 15. | LONGITUDE 080 09 57.

10 TYPE OF OWNERSHIP (Check one): ☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
11 10 81 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1974 / 1982 (BEGINNING YEAR / ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ______ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ______ (Name of firm)

☒ E. STATE ☐ F. STATE CONTRACTOR ______ (Name of firm) ☐ G. OTHER ______ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
			( )

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO
			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT		

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
Eric Nuzie	FDER	(904) 488-0190

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Stephany Fine		NUS Corp.	(404) 938-7710	4-16-90 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- X A. SOLID
- B. POWDER, FINES
- C. SLUDGE
- D. OTHER ________ (Specify)
- E. SLURRY
- X F. LIQUID
- G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS Unknown

CUBIC YARDS ________

NO. OF DRUMS ________

03 WASTE CHARACTERISTICS (Check all that apply)

- X A. TOXIC
- B. CORROSIVE
- C. RADIOACTIVE
- D. PERSISTENT
- E. SOLUBLE
- F. INFECTIOUS
- X G. FLAMMABLE
- H. IGNITABLE
- I. HIGHLY VOLATILE
- J. EXPLOSIVE
- K. REACTIVE
- L. INCOMPATIBLE
- M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	Unknown		
SOL	SOLVENTS	Unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	Unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OLW	Hydraulic oil		Unknown	Unknown	
SOL	Methyl ethyl ketone		Unknown	"	
IOC	Styrene		Reuse/resale	"	
IOC	Polypropylene		Reuse/resale	"	
IOC	Acrylic		Reuse/resale	"	

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

State Files & EPA Files

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

EPA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
FL	D981026933

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000 + — 04 NARRATIVE DESCRIPTION

Rinsewater drained to storm sewer + could contaminate the groundwater

01 X B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ — 04 NARRATIVE DESCRIPTION

Groundwater contaminants could enter surface water

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: ______) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______ — 04 NARRATIVE DESCRIPTION

Possible if soil is contaminated, but unknown

01 X D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______ — 04 NARRATIVE DESCRIPTION

The solvents used are flammable

01 X E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ______ — 04 NARRATIVE DESCRIPTION

At the present time, the site does not restrict access

01 X F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: < 0.5 (Acres) — 04 NARRATIVE DESCRIPTION

Possible spills or discharge of rinsewater could contaminate soil onsite

01 X G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000 + — 04 NARRATIVE DESCRIPTION

Site is near Fort Lauderdale municipal wellfield

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: ______) — ☐ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ______ — 04 NARRATIVE DESCRIPTION

The Acme facility is no longer active, so workers won't be exposed.

01 X I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: ______) — X POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ — 04 NARRATIVE DESCRIPTION

Resident of the area may be exposed through groundwater and drinking water

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
FL	D991026933

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No signs of stressed vegetation

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (include name(s) of species)
None known

01 ☒ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Through fishing in contaminated surface water

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ 04 NARRATIVE DESCRIPTION
Containment of oil + MEK is unknown

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None known

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Contaminated rinsewater washed into storm sewer

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None known

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
None

III. TOTAL POPULATION POTENTIALLY AFFECTED: ______

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
EPA + State Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	Unknown	
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER ______ (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☒ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER ______ (Specify)

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

0.5 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS: Site is not fenced + access is not restricted

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

EPA + State Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: FL | 02 SITE NUMBER: D981026933

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A ☐	B ☒
NON-COMMUNITY	C ☐	D ☐

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☒	B. ☐	C. ☐
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE
A. < 1 (mi)
B. ______ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING
☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)
☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available)
☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER 10,000 +

03 DISTANCE TO NEAREST DRINKING WATER WELL < 1 (mi)

04 DEPTH TO GROUNDWATER 4 (ft)

05 DIRECTION OF GROUNDWATER FLOW N

06 DEPTH TO AQUIFER OF CONCERN 4 (ft)

07 POTENTIAL YIELD OF AQUIFER 60,000 (gpd)

08 SOLE SOURCE AQUIFER ☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)

Municipal wells < 1 mile from facility

10 RECHARGE AREA
☒ YES ☐ NO
COMMENTS Through rainwater

11 DISCHARGE AREA
☐ YES ☐ NO
COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE
☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES
☐ C. COMMERCIAL, INDUSTRIAL
☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
	☐	(mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. ______ NO. OF PERSONS	B. ______ NO. OF PERSONS	C. ______ NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION ______ (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE ______

04 DISTANCE TO NEAREST OFF-SITE BUILDING < 1 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Urban densly-populated

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE: FL | 02 SITE NUMBER: D981026933

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☒ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☒ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
____ (ft)	____ (ft)	____

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
13 (in)	4.5 (in)	1 %	N	1 %

09 FLOOD POTENTIAL

SITE IS IN ____ YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE A. >3 (mi) OTHER B. >3 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

>3 (mi)

ENDANGERED SPECIES: ____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. <1 (mi)	B. >3 (mi)	C. >3 (mi)	D. >3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located in a higher land area south of a large sinkhole.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA & State Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
FL	D061026933

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER Discharge well			1982

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF ____________________ (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS: NUS Corp

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Results of water samples at discharge well show facility to be in compliance with groundwater standards

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

EPA & State Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. CURRENT OWNER(S)			PARENT COMPANY (if applicable)		
01 NAME: NewRiver Cabinet		02 D+B NUMBER:	08 NAME:		09 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 750 NW 57th Ct		04 SIC CODE:	10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:
05 CITY: Fort Lauderdale	06 STATE: FL	07 ZIP CODE: 33309	12 CITY:	13 STATE:	14 ZIP CODE:
01 NAME:		02 D+B NUMBER:	08 NAME:		09 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:
05 CITY:	06 STATE:	07 ZIP CODE:	12 CITY:	13 STATE:	14 ZIP CODE:
01 NAME:		02 D+B NUMBER:	08 NAME:		09 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:
05 CITY:	06 STATE:	07 ZIP CODE:	12 CITY:	13 STATE:	14 ZIP CODE:
01 NAME:		02 D+B NUMBER:	08 NAME:		09 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:
05 CITY:	06 STATE:	07 ZIP CODE:	12 CITY:	13 STATE:	14 ZIP CODE:

III. PREVIOUS OWNER(S) (List most recent first)			IV. REALTY OWNER(S) (If applicable, list most recent first)		
01 NAME: Foam Factory		02 D+B NUMBER:	01 NAME:		02 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 750 NW 57th Ct.		04 SIC CODE:	03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:
05 CITY: Fort Lauderdale	06 STATE: FL	07 ZIP CODE: 33309	05 CITY:	06 STATE:	07 ZIP CODE:
01 NAME: Acme Plastics		02 D+B NUMBER:	01 NAME:		02 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 750 NW 57th Ct		04 SIC CODE:	03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:
05 CITY: Fort Lauderdale	06 STATE: FL	07 ZIP CODE: 33309	05 CITY:	06 STATE:	07 ZIP CODE:
01 NAME:		02 D+B NUMBER:	01 NAME:		02 D+B NUMBER:
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:
05 CITY:	06 STATE:	07 ZIP CODE:	05 CITY:	06 STATE:	07 ZIP CODE:

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA + State Files, Recon

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
FL	D081026933

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
New River Cabinet	

03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P O Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
Foam Factory	

03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER
Acme Plastics	

03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P O Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P O Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P O Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA + State Files, Recon

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
FL	D981026933

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
None	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA & State Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE: FL | 02 SITE NUMBER: D981026933

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ D. SPILLED MATERIAL REMOVED 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ E. CONTAMINATED SOIL REMOVED 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ F. WASTE REPACKAGED 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ G. WASTE DISPOSED ELSEWHERE 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ H. ON SITE BURIAL 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ I. IN SITU CHEMICAL TREATMENT 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ J. IN SITU BIOLOGICAL TREATMENT 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ K. IN SITU PHYSICAL TREATMENT 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ L. ENCAPSULATION 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ M. EMERGENCY WASTE TREATMENT 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ N. CUTOFF WALLS 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ O. EMERGENCY DIKING SURFACE WATER DIVERSION 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ P. CUTOFF TRENCHES/SUMP 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

01 ☐ Q. SUBSURFACE CUTOFF WALL 02 DATE ________ 03 AGENCY ________
04 DESCRIPTION
None

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: FL
02 SITE NUMBER: D981026933

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION
None

01 ☐ S. CAPPING/COVERING — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE ______ 03 AGENCY ______
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA & State Files

EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA & State Files

EPA FORM 2070-13 (7-81)

APPENDIX

I. FEEDSTOCKS

CAS Number	Chemical Name
1. 7664-41-7	Ammonia
2. 7440-36-0	Antimony
3. 1309-64-4	Antimony Trioxide
4. 7440-38-2	Arsenic
5. 1327-53-3	Arsenic Trioxide
6. 21109-95-5	Barium Sulfide
7. 7726-95-6	Bromine
8. 106-99-0	Butadiene
9. 7440-43-9	Cadmium
10. 7782-50-5	Chlorine
11. 12737-27-8	Chromite
12. 7440-47-3	Chromium
13. 7440-48-4	Cobalt
14. 1317-38-0	Cupric Oxide
15. 7758-98-7	Cupric Sulfate
16. 1317-39-1	Cuprous Oxide
17. 74-85-1	Ethylene
18. 7647-01-0	Hydrochloric Acid
19. 7664-39-3	Hydrogen Fluoride
20. 1335-25-7	Lead Oxide
21. 7439-97-6	Mercury
22. 74-82-8	Methane
23. 91-20-3	Napthalene
24. 7440-02-0	Nickel
25. 7697-37-2	Nitric Acid
26. 7723-14-0	Phosphorus
27. 7778-50-9	Potassium Dichromate
28. 1310-58-3	Potassium Hydroxide
29. 115-07-1	Propylene
30. 10588-01-9	Sodium Dichromate
31. 1310-73-2	Sodium Hydroxide
32. 7646-78-8	Stannic Chloride
33. 7772-99-8	Stannous Chloride
34. 7664-93-9	Sulfuric Acid
35. 108-88-3	Toluene
36. 1330-20-7	Xylene
37. 7646-85-7	Zinc Chloride
38. 7733-02-0	Zinc Sulfate

II. HAZARDOUS SUBSTANCES

CAS Number	Chemical Name
1. 75-07-0	Acetaldehyde
2. 64-19-7	Acetic Acid
3. 108-24-7	Acetic Anhydride
4. 75-86-5	Acetone Cyanohydrin
5. 506-96-7	Acetyl Bromide
6. 75-36-5	Acetyl Chloride
7. 107-02-8	Acrolein
8. 107-13-1	Acrylonitrile
9. 124-04-9	Adipic Acid
10. 309-00-2	Aldrin
11. 10043-01-3	Aluminum Sulfate
12. 107-18-6	Allyl Alcohol
13. 107-05-1	Allyl Chloride
14. 7664-41-7	Ammonia
15. 631-61-8	Ammonium Acetate
16. 1863-63-4	Ammonium Benzoate
17. 1066-33-7	Ammonium Bicarbonate
18. 7789-09-5	Ammonium Bichromate
19. 1341-49-7	Ammonium Bifluoride
20. 10192-30-0	Ammonium Bisulfite
21. 1111-78-0	Ammonium Carbamate
22. 12125-02-9	Ammonium Chloride
23. 7788-98-9	Ammonium Chromate
24. 3012-65-5	Ammonium Citrate, Dibasic
25. 13826-83-0	Ammonium Fluoborate
26. 12125-01-8	Ammonium Fluoride
27. 1336-21-6	Ammonium Hydroxide
28. 6009-70-7	Ammonium Oxalate
29. 16919-19-0	Ammonium Silicofluoride
30. 7773-06-0	Ammonium Sulfamate
31. 12135-76-1	Ammonium Sulfide
32. 10196-04-0	Ammonium Sulfite
33. 14307-43-8	Ammonium Tartrate
34. 1762-95-4	Ammonium Thiocyanate
35. 7783-18-8	Ammonium Thiosulfate
36. 628-63-7	Amyl Acetate
37. 62-53-3	Aniline
38. 7647-18-9	Antimony Pentachloride
39. 7789-61-9	Antimony Tribromide
40. 10025-91-9	Antimony Trichloride
41. 7783-56-4	Antimony Trifluoride
42. 1309-64-4	Antimony Trioxide
43. 1303-32-8	Arsenic Disulfide
44. 1303-28-2	Arsenic Pentoxide
45. 7784-34-1	Arsenic Trichloride
46. 1327-53-3	Arsenic Trioxide
47. 1303-33-9	Arsenic Trisulfide
48. 542-62-1	Barium Cyanide
49. 71-43-2	Benzene
50. 65-85-0	Benzoic Acid
51. 100-47-0	Benzonitrile
52. 98-88-4	Benzoyl Chloride
53. 100-44-7	Benzyl Chloride
54. 7440-41-7	Beryllium
55. 7787-47-5	Beryllium Chloride
56. 7787-49-7	Beryllium Fluoride
57. 13597-99-4	Beryllium Nitrate
58. 123-86-4	Butyl Acetate
59. 84-74-2	n-Butyl Phthalate
60. 109-73-9	Butylamine
61. 107-92-6	Butyric Acid
62. 543-90-8	Cadimium Acetate
63. 7789-42-6	Cadmium Bromide
64. 10108-64-2	Cadmium Chloride
65. 7778-44-1	Calcium Arsenate
66. 52740-16-6	Calcium Arsenite
67. 75-20-7	Calcium Carbide
68. 13765-19-0	Calcium Chromate
69. 592-01-8	Calcium Cyanide
70. 26264-06-2	Calcium Dodecylbenzene Sulfonate
71. 7778-54-3	Calcium Hypochlorite
72. 133-06-2	Captan
73. 63-25-2	Carbaryl
74. 1563-66-2	Carbofuran
75. 75-15-0	Carbon Disulfide
76. 56-23-5	Carbon Tetrachloride
77. 57-74-9	Chlordane
78. 7782-50-5	Chlorine
79. 108-90-7	Chlorobenzene
80. 67-66-3	Chloroform
81. 7790-94-5	Chlorosulfonic Acid
82. 2921-88-2	Chlorpyrifos
83. 1066-30-4	Chromic Acetate
84. 7738-94-5	Chromic Acid
85. 10101-53-8	Chromic Sulfate
86. 10049-05-5	Chromous Chloride
87. 544-18-3	Cobaltous Formate
88. 14017-41-5	Cobaltous Sulfamate
89. 56-72-4	Coumaphos
90. 1319-77-3	Cresol
91. 4170-30-3	Crotonaldehyde
92. 142-71-2	Cupric Acetate
93. 12002-03-8	Cupric Acetoarsenite
94. 7447-39-4	Cupric Chloride
95. 3251-23-8	Cupric Nitrate
96. 5893-66-3	Cupric Oxalate
97. 7758-98-7	Cupric Sulfate
98. 10380-29-7	Cupric Sulfate Ammoniated
99. 815-82-7	Cupric Tartrate
100. 506-77-4	Cyanogen Chloride
101. 110-82-7	Cyclohexane
102. 94-75-7	2,4-D Acid
103. 94-11-1	2,4-D Esters
104. 50-29-3	DDT
105. 333-41-5	Diazinon
106. 1918-00-9	Dicamba
107. 1194-65-6	Dichlobenil
108. 117-80-6	Dichlone
109. 25321-22-6	Dichlorobenzene (all isomers)
110. 266-38-19-7	Dichloropropane (all isomers)
111. 26952-23-8	Dichloropropene (all isomers)
112. 8003-19-8	Dichloropropene-Dichloropropane Mixture
113. 75-99-0	2-2-Dichloropropionic Acid
114. 62-73-7	Dichlorvos
115. 60-57-1	Dieldrin
116. 109-89-7	Diethylamine
117. 124-40-3	Dimethylamine
118. 25154-54-5	Dinitrobenzene (all isomers)
119. 51-28-5	Dinitrophenol
120. 25321-14-6	Dinitrotoluene (all isomers)
121. 85-00-7	Diquat
122. 298-04-4	Disulfoton
123. 330-54-1	Diuron
124. 27176-87-0	Dodecylbenzenesulfonic Acid
125. 115-29-7	Endosulfan (all isomers)
126. 72-20-8	Endrin and Metabolites
127. 106-89-8	Epichlorohydrin
128. 563-12-2	Ethion
129. 100-41-4	Ethyl Benzene
130. 107-15-3	Ethylenediamine
131. 106-93-4	Ethylene Dibromide
132. 107-06-2	Ethylene Dichloride
133. 60-00-4	EDTA
134. 1185-57-5	Ferric Ammonium Citrate
135. 2944-67-4	Ferric Ammonium Oxalate
136. 7705-08-0	Ferric Chloride

II. HAZARDOUS SUBSTANCES

CAS Number	Chemical Name
137. 7783-50-8	Ferric Fluoride
138. 10421-48-4	Ferric Nitrate
139. 10028-22-5	Ferric Sulfate
140. 10045-89-3	Ferrous Ammonium Sulfate
141. 7758-94-3	Ferrous Chloride
142. 7720-78-7	Ferrous Sulfate
143. 206-44-0	Fluoranthene
144. 50-00-0	Formaldehyde
145. 64-18-6	Formic Acid
146. 110-17-8	Fumaric Acid
147. 98-01-1	Furfural
148. 86-50-0	Guthion
149. 76-44-8	Heptachlor
150. 118-74-1	Hexachlorobenzene
151. 87-68-3	Hexachlorobutadiene
152. 67-72-1	Hexachloroethane
153. 70-30-4	Hexachlorophene
154. 77-47-4	Hexachlorocyclopentadiene
155. 7647-01-0	Hydrochloric Acid (Hydrogen Chloride)
156. 7664-39-3	Hydrofluoric Acid (Hydrogen Fluoride)
157. 74-90-8	Hydrogen Cyanide
158. 7783-06-4	Hydrogen Sulfide
159. 78-79-5	Isoprene
160. 42504-46-1	Isopropanolamine Dodecylbenzenesulfonate
161. 115-32-2	Kelthane
162. 143-50-0	Kepone
163. 301-04-2	Lead Acetate
164. 3687-31-8	Lead Arsenate
165. 7758-95-4	Lead Chloride
166. 13814-96-5	Lead Fluoborate
167. 7783-46-2	Lead Fluoride
168. 10101-63-0	Lead Iodide
169. 18256-98-9	Lead Nitrate
170. 7428-48-0	Lead Stearate
171. 15739-80-7	Lead Sulfate
172. 1314-87-0	Lead Sulfide
173. 592-87-0	Lead Thiocyanate
174. 58-89-9	Lindane
175. 14307-35-8	Lithium Chromate
176. 121-75-5	Malthion
177. 110-16-7	Maleic Acid
178. 108-31-6	Maleic Anhydride
179. 2032-65-7	Mercaptodimethur
180. 592-04-1	Mercuric Cyanide
181. 10045-94-0	Mercuric Nitrate
182. 7783-35-9	Mercuric Sulfate
183. 592-85-8	Mercuric Thiocyanate
184. 10415-75-5	Mercurous Nitrate
185. 72-43-5	Methoxychlor
186. 74-93-1	Methyl Mercaptan
187. 80-62-6	Methyl Methacrylate
188. 298-00-0	Methyl Parathion
189. 7786-34-7	Mevinphos
190. 315-18-4	Mexacarbate
191. 75-04-7	Monoethylamine
192. 74-89-5	Monomethylamine
193. 300-76-5	Naled
194. 91-20-3	Naphthalene
195. 1338-24-5	Naphthenic Acid
196. 7440-02-0	Nickel
197. 15699-18-0	Nickel Ammonium Sulfate
198. 37211-05-5	Nickel Chloride
199. 12054-48-7	Nickel Hydroxide
200. 14216-75-2	Nickel Nitrate
201. 7786-81-4	Nickel Sulfate
202. 7697-37-2	Nitric Acid
203. 98-95-3	Nitrobenzene
204. 10102-44-0	Nitrogen Dioxide
205. 25154-55-6	Nitrophenol (all isomers)
206. 1321-12-6	Nitrotoluene
207. 30525-89-4	Paraformaldehyde
208. 56-38-2	Parathion
209. 608-93-5	Pentachlorobenzene
210. 87-86-5	Pentachlorophenol
211. 85-01-8	Phenanthrene
212. 108-95-2	Phenol
213. 75-44-5	Phosgene
214. 7664-38-2	Phosphoric Acid
215. 7723-14-0	Phosphorus
216. 10025-87-3	Phosphorus Oxychloride
217. 1314-80-3	Phosphorus Pentasulfide
218. 7719-12-2	Phosphorus Trichloride
219. 7784-41-0	Potassium Arsenate
220. 10124-50-2	Potassium Arsenite
221. 7778-50-9	Potassium Bichromate
222. 7789-00-6	Potassium Chromate
223. 7722-64-7	Potassium Permanganate
224. 2312-35-8	Propargite
225. 79-09-4	Propionic Acid
226. 123-62-6	Propionic Anhydride
227. 1336-36-3	Polychlorinated Biphenyls
228. 151-50-8	Potassium Cyanide
229. 1310-58-3	Potassium Hydroxide
230. 75-56-9	Propylene Oxide
231. 121-29-9	Pyrethrins
232. 91-22-5	Quinoline
233. 108-46-3	Resorcinol
234. 7446-08-4	Selenium Oxide
235. 7761-88-8	Silver Nitrate
236. 7631-89-2	Sodium Arsenate
237. 7784-46-5	Sodium Arsenite
238. 10588-01-9	Sodium Bichromate
239. 1333-83-1	Sodium Bifluoride
240. 7631-90-5	Sodium Bisulfite
241. 7775-11-3	Sodium Chromate
242. 143-33-9	Sodium Cyanide
243. 25155-30-0	Sodium Dodecylbenzene Sulfonate
244. 7681-49-4	Sodium Fluoride
245. 16721-80-5	Sodium Hydrosulfide
246. 1310-73-2	Sodium Hydroxide
247. 7681-52-9	Sodium Hypochlorite
248. 124-41-4	Sodium Methylate
249. 7632-00-0	Sodium Nitrate
250. 7558-79-4	Sodium Phosphate, Dibasic
251. 7601-54-9	Sodium Phosphate, Tribasic
252. 10102-18-8	Sodium Selenite
253. 7789-06-2	Strontium Chromate
254. 57-24-9	Strychnine and Salts
255. 100-420-5	Styrene
256. 12771-08-3	Sulfur Monochloride
257. 7664-93-9	Sulfuric Acid
258. 93-76-5	2,4,5-T Acid
259. 2008-46-0	2,4,5-T Amines
260. 93-79-8	2,4,5-T Esters
261. 13560-99-1	2,4,5-T Salts
262. 93-72-1	2,4,5-TP Acid
263. 32534-95-5	2,4,5-TP Acid Esters
264. 72-54-8	TDE
265. 95-94-3	Tetrachlorobenzene
266. 127-18-4	Tetrachloroethane
267. 78-00-2	Tetraethyl Lead
268. 107-49-3	Tetraethyl Pyrophosphate
269. 7446-18-6	Thallium (I) Sulfate
270. 108-88-3	Toluene
271. 8001-35-2	Toxaphene
272. 12002-48-1	Trichlorobenzene (all isomers)
273. 52-68-6	Trichlorfon
274. 25323-89-1	Trichloroethane (all isomers)
275. 79-01-6	Trichloroethylene
276. 25167-82-2	Trichlorophenol (all isomers)
277. 27323-41-7	Triethanolamine Dodecylbenzenesulfonate
278. 121-44-8	Triethylamine
279. 75-50-3	Trimethylamine
280. 541-09-3	Uranyl Acetate
281. 10102-06-4	Uranyl Nitrate
282. 1314-62-1	Vanadium Pentoxide
283. 27774-13-6	Vanadyl Sulfate
284. 108-05-4	Vinyl Acetate
285. 75-35-4	Vinylidene Chloride
286. 1300-71-6	Xylenol
287. 557-34-6	Zinc Acetate
288. 52628-25-8	Zinc Ammonium Chloride
289. 1332-07-6	Zinc Borate
290. 7699-45-8	Zinc Bromide
291. 3486-35-9	Zinc Carbonate
292. 7646-85-7	Zinc Chloride
293. 557-21-1	Zinc Cyanide
294. 7783-49-3	Zinc Fluoride
295. 557-41-5	Zinc Formate
296. 7779-86-4	Zinc Hydrosulfite
297. 7779-88-6	Zinc Nitrate
298. 127-82-2	Zinc Phenolsulfonate
299. 1314-84-7	Zinc Phosphide
300. 16871-71-9	Zinc Silicofluoride
301. 7733-02-0	Zinc Sulfate
302. 13746-89-9	Zirconium Nitrate
303. 16923-95-8	Zirconium Potassium Fluoride
304. 14644-61-2	Zirconium Sulfate
305. 10026-11-6	Zirconium Tetrachloride

Reference 1

. .L.E:W.

ACME PLASTICS, INC.
FLD981026933
PRELIMINARY ASSESSMENT

A. SITE DESCRIPTION. Acme Plastics, Inc. was located in a commercial/industrial area at 750 NW 57th CT, Fort Lauderdale, Broward County, Florida. The facility was a manufacturer of plastic letters for the sign industry from at least 1974 to 1982. The Foam Factory is now located at this site.

B. DESCRIPTION OF HAZARDOUS CONDITIONS, INCIDENTS AND PERMIT VIOLATIONS. Acme Plastics, Inc. was a manufacturer of plastic letters for signs and the process involved injection molding. The plastics that were used were styrene, polypropylene and acrylics. Waste plastic was reused or baled for scrap resale. The injection molding presses required cooling water and hydraulic oil. Methyl ethyl ketone (MEK) was used during the manufacturing of the plastic until 1979. An industrial sludge survey, 5/19/81, stated that no waste is generated, and as of 3/18/82, the facility was given a non-source status. The Foam Factory is now located at this site, and there is no information available about this facility.

Cooling water for the injection molding presses was obtained from a closed loop supply and discharge well system. Both supply and discharge wells are 4 inches in diameter and 150 feet deep, with a maximum continuous flow of 10,000 GPD. On 11/10/81 water samples were taken from the system just before the discharge well. The results indicated that the facility was in compliance with groundwater discharge standards. The current status of the supply/discharge wells is unknown. No permit violations have been reported.

C. NATURE OF HAZARDOUS MATERIALS. The hazardous materials that were at the site were MEK which is volatile, reactive and flammable, styrene which is reactive and flammable, paint and oil.

D. ROUTES OF CONTAMINATION. Possible routes of contamination include drinking water, surface water, soils and groundwater used for irrigation and other purposes.

E. POSSIBLE AFFECTED POPULATION AND RESOURCES. Area residents are provided with drinking water from the City of Fort Lauderdale Executive/Prospect municipal wellfield. The wellfield draws from the Biscayne aquifer, which is a shallow, permeable, sole-source aquifer. The site is located 2000 feet east of the nearest wells, thus, potential contaminants in the groundwater may reach the wellfield.

F. RECOMMENDATIONS AND JUSTIFICATIONS. Acme Plastics, Inc. is no longer located at this site; the present site occupant is the Foam Factory. Acme Plastics was given a "non-source status" in March, 1982. There is no information available for the Foam Factory. A low priority for inspection is recommended at this facility; however, the status of the well system should be ascertained.

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: FL
02 SITE NUMBER: D9810269

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): Acme Plastics, Inc.	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 750 NW 57th CT				
03 CITY: Fort Lauderdale	04 STATE: FL	05 ZIP CODE: 33309	06 COUNTY: Broward	07 COUNTY CODE: 011	08 CONG DIST: 17
09 COORDINATES LATITUDE: 26 12 15.	LONGITUDE: 080 08 57.				

10 DIRECTIONS TO SITE (Starting from nearest public road)
Proceed north on I-95 from Fort Lauderdale, exit onto Commercial Blvd; proceed west on Commercial Blvd. ¼ mile to Powerline Rd.; proceed north on Powerline 3000 feet to NW 57th CT.; proceed east on NW 57th CT, the site is the last building on the left.

III. RESPONSIBLE PARTIES

01 OWNER (if known): Acme Plastics, Inc.	02 STREET (Business, mailing, residential): 750 NW 57th CT		
03 CITY: Fort Lauderdale	04 STATE: FL	05 ZIP CODE: 33309	06 TELEPHONE NUMBER: (305) 772-3720
07 OPERATOR (if known and different from owner): Frank Nickola - General Manager	08 STREET (Business, mailing, residential): Same		
09 CITY: Fort Lauderdale	10 STATE: FL	11 ZIP CODE: 33309	12 TELEPHONE NUMBER: ( )

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: ____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: ____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE __/__/__ (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☒ F. OTHER: Broward County Environmental (Specify)
CONTRACTOR NAME(S): Quality Control Board (BCEQCB)

02 SITE STATUS (Check one)
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
Pre-1974 (BEGINNING YEAR) 1982 (ENDING YEAR) ☒ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Acme Plastics was a manufacturer of plastic letters for the sign industry. Methyl ethyl ketone, paint, styrene and oil were used in the manufacturing process.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Methyl ethyl ketone (MEK) was used in the plastics manufacturing process. It is not known how much spent MEK was generated or the method of disposal. Rinsewater was discharged and drained into a storm sewer near the building in 1975.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☒ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT: Eric Nuzie Cortland S. Hill	02 OF (Agency/Organization): FDER		03 TELEPHONE NUMBER: (904) 488-0190
04 PERSON RESPONSIBLE FOR ASSESSMENT: Willard Murray	05 AGENCY: N/A	06 ORGANIZATION: E.C. Jordan Co.	07 TELEPHONE NUMBER: (207) 775-5401
			08 DATE: 11/7/85 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

LRH

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: FL | 02 SITE NUMBER: D98102693

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 10,000+
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Rinsing of painted silk screens was done on-site in 1975, the rinsewater mixed with some paint waste and cleaner drained into the back alley to a storm sewer. Contaminants in this rinsewater may have contaminated the groundwater. No groundwater samples have been taken.

01 ☒ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 10,000+
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

The site is less than 1 mile south of Cypress Creek Canal. Potential contaminants in the groundwater may have reached nearby surface water. No surface water samples have been taken.

01 ☒ C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No file information is available regarding the present site occupant.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No file information is available regarding the present site occupant.

01 ☒ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No file information is available regarding the present site occupant.

01 ☒ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: <0.5 (Acres)
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Possible spills of materials on-site or discharged rinsewater may have contaminated soil on-site. No soil samples have been taken.

01 ☒ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 10,000+
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Area residents are provided with drinking water from the Fort Lauderdale Executive/ Prospect Municipal Wellfield which produces from the shallow and permeable Biscayne aquifer. The site is located 2000 feet east of the nearest wells, and contaminants in the groundwater, may reach the Wellfield.

01 ☐ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 0
02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

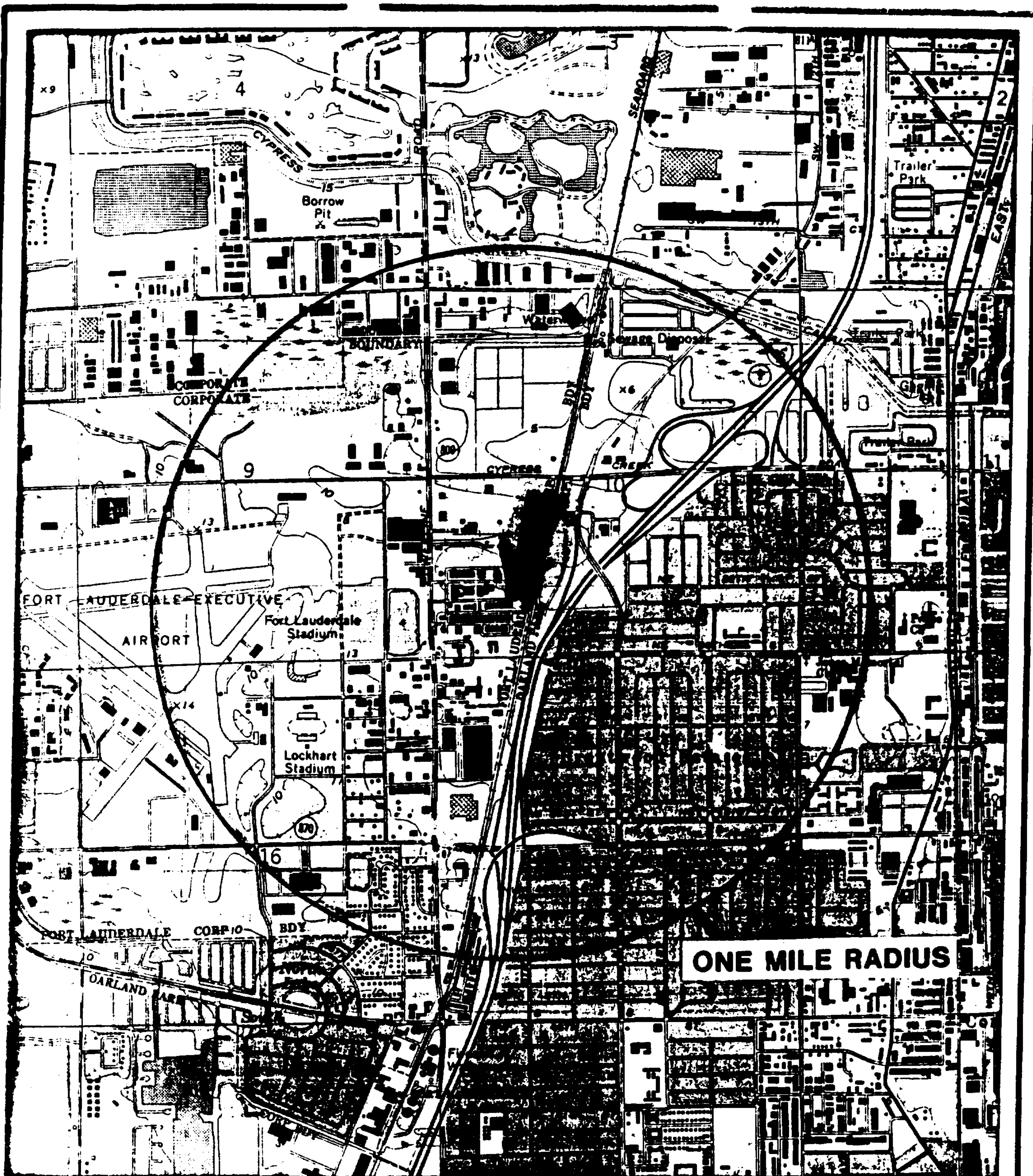
Remote potential. The ACME facility is no longer active, thus, causing no potential for worker injury. However, no information is available for the current site occupant.

01 ☒ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: 10,000+
02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Area residents may be exposed to hazardous substances via groundwater used for irrigation and other purposes, surface water,. drinking water and soils.

ATTACHMENT A
ACME PLASTICS, INC.
FLD981026933
ON-SITE INSPECTIONS

Date	Agency	Samples	Comments
7/30/85	E.C. Jordan Co. for FDER	No	Windshield survey (off-site inspection) found that Acme Plastics was no longer at the site.
7/20/82	FDER	No	No problems noted.
11/10/81	FDER	Yes	Groundwater discharge analysis, no problems noted.
5/19/81	FDER	No	Industrial sludge survey.
9/20/74 to 5/14/80	FDER	No	(15) Inspection Reports.



SCALE 1 : 24000

1/2 1 MILE

1000 0 1000 2000 FEET

N

SITE LOCATION MAP

Acme Plastic, Inc.

750 NW 57 Court

USGS QUAD Ft. Lauderdale North

DATE 1983

E.C.JORDAN CO.

REFERENCE LIST

1. Environmental Protection Agnecy, Federal Register, National Oil and Hazardous Substances Contingency Plan, Part V, July 16, 1982.

2. Farm Chemicals Handbook, Willoughby, OH; Meister Publishing Company, 1982.

3. Florida Department of Environmental Regulation, The Sites List, Summary Status Report, July 1, 1983 - June 30, 1984.

4. Florida Department of Environmental Regulation, 3012 Folder, 2600 Blairstone Road, Tallahassee, Florida. To be used for completion of Preliminary Assessment, Form 2070-12.

5. Florida Department of Natural Resources, Water Resources of Broward County, Report of Investigation No. 65, 1973.

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9. Health and Safety Plan, Florida 3012 Program, E.C. Jordan Co., June 1984.

10. Healy, Henry G., 1977, Public Water Supplies of Selected Municipalities in Florida, 1975: U.S. Geological Survey, Water-Resources Investigations 77-53, p. 309.

11. NUS Project for Performance of Remedial Response Activities at Uncontrolled Hazardous Substance Facilities--Zone 1. NUS Corporation, Superfund Division.

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13. Sax, N. Irving, Dangerous Properties of Industrial Materials, Sixth Edition, Van Nostrand Reinhold Co., 1984.

14. TLVs Threshold Limit Values for Chemical Substances in the Work Environment Adopted by ACGIH for 1983-84, American Conference of Governmental Industrial Hygienists, ISBN: 0-936712-45-7, 1983.

15. U.S. Geological Survey, Topographic Map, 1-24,000 Series.

16. Windholz, M., ed. The Merck Index, an Encyclopedia of Chemicals and Drugs, Rahway, NJ: Merck and Company, Inc., 1976.

Reference 3

"Rite in the Rain" - A unique All-Weather Writing Paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

Available in a variety of standard and custom printed case-bound field books, loose leaf, spiral and stapled notebooks, multi-copy sets and computer papers.

"Rite in the Rain" All-Weather Writing Papers are also available in a wide selection of rolls and sheets for printing and photocopying.

a product of

J. L. DARLING CORPORATION
TACOMA, WA 98421-3696 USA

P.M. 3/30/90

"Rite in the Rain"®

ALL-WEATHER

LEVEL

Notebook No. 311

F4-21~~27~~ 30 P.M. 3/30/90

Acme Plastics P.M. 3/30/90
~~Aviation Maintenance, INC.~~

Fort Lauderdale, Broward County, FLA.

TDD # F4-9002-~~100~~ 19 P.M. 3/30/90

Project Manager- ~~Paul Moisan~~ P.M. 3/30/90

LOGBOOK REQUIREMENTS
REVISED - NOVEMBER 29, 1988

NOTE: ALL LANGUAGE SHOULD BE FACTUAL AND OBJECTIVE

1. Record on front cover of the Logbook: TDD No., Site Name, Site Location, Project Manager.
2. All entries are made using ink. Draw a single line through errors. Initial and date corrections.
3. Statement of Work Plan, Study Plan, and Safety Plan discussion and distribution to field team with team members' signatures.
4. Record weather conditions and general site information.
5. Sign and date each page. Project Manager is to review and sign off on each logbook daily.
6. Document all calibration and pre-operational checks of equipment. Provide serial numbers of equipment used onsite.
7. Provide reference to Sampling Field Sheets for detailed sampling information.
8. Describe sampling locations <u>in detail</u> and document all changes from project planning documents.
9. Provide a site sketch with sample locations and photo locations.
10. Maintain photo log by completing the stamped information at the end of the logbook.
11. If no site representative is on hand to accept the receipt for samples, an entry to that effect must be placed in the logbook.
12. Record I.D. numbers of COC and receipt for sample forms used. Also record numbers of destroyed documents.
13. Complete SMO information in the space provided.

The undersigned have read and underst the work plan for this phase of the site assessment.

Paul Moisan Paul Moisan

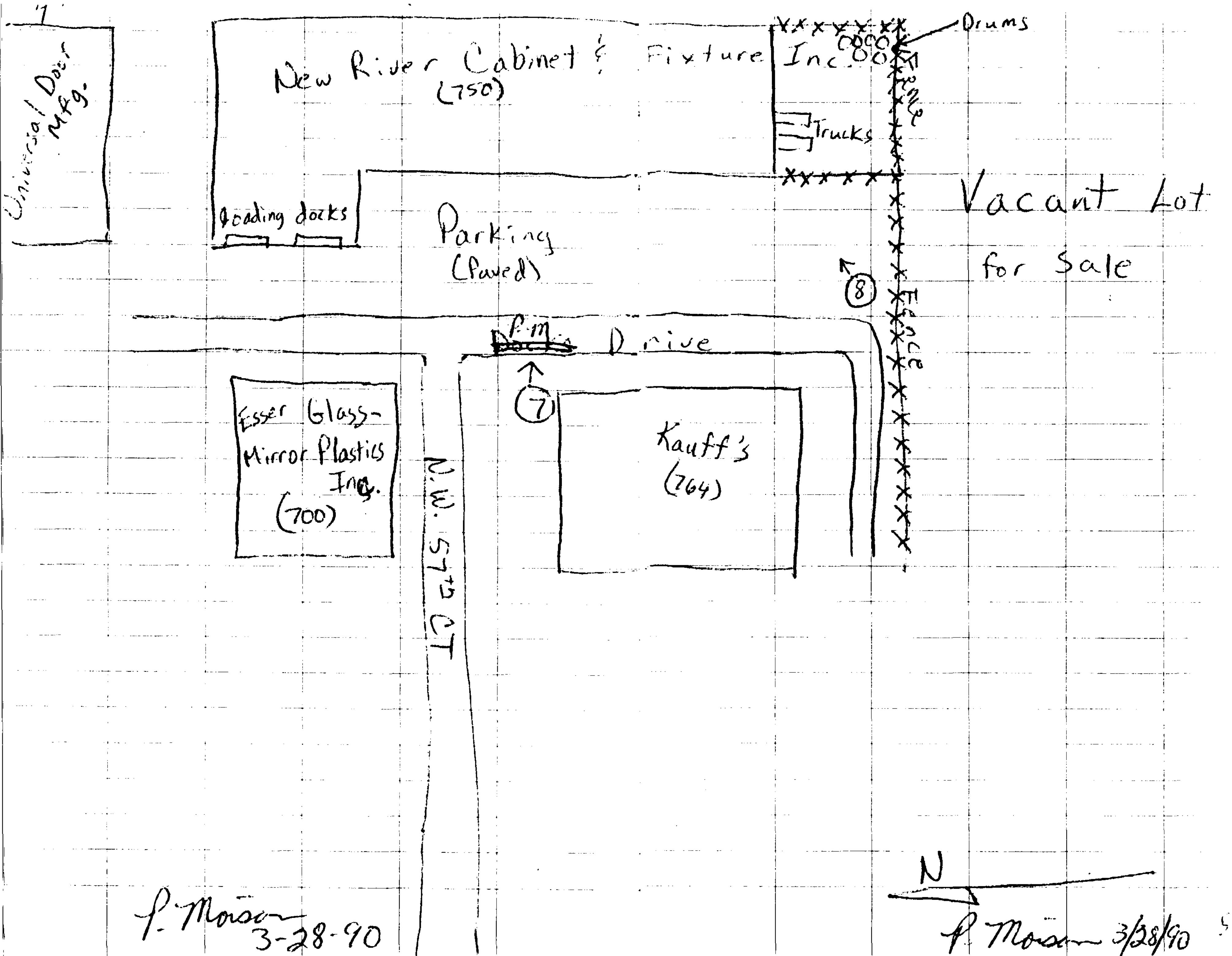
Greg Thomas

3/28/90

1

10:35 - Arrived at site. Weather is partly cloudy and warm. Facility is at the end of N.W. 57th CT. New company in building - New River Cabinet & Fixture, Inc. appears to be active. Surface water drainage from the facility appears to drain to the north along R.R. tracks. Property is not fenced and is easily accessible. Land adjacent to property ~~boundries~~ boundaries is industrial with a vacant lot immediately south of site for sale. No stressed vegetation noted. Drums noted in fenced in area at south end of building. Took pictures looking at (7) front of building (west side) and (8) at south side of building.

P. Moise 3/28/90


1
Universal Door Mfg.
New River Cabinet & Fixture Inc. (750)
Drums
Fence
Trucks
Loading docks
Parking (Paved)
Vacant Lot for Sale
8
~~Docks~~ P.M. Drive
7
Esser Glass-Mirror Plastics Inc. (700)
N.W. 57th CT
Kauff's (764)
N
P. Moisan 3-28-90
P. Moisan 3/28/90

Reference 4

STATE OF FLORIDA
DEPARTMENT OF NATURAL RESOURCES

BUREAU OF GEOLOGY
Robert O. Vernon, Chief

GEOLOGICAL BULLETIN NO. 51

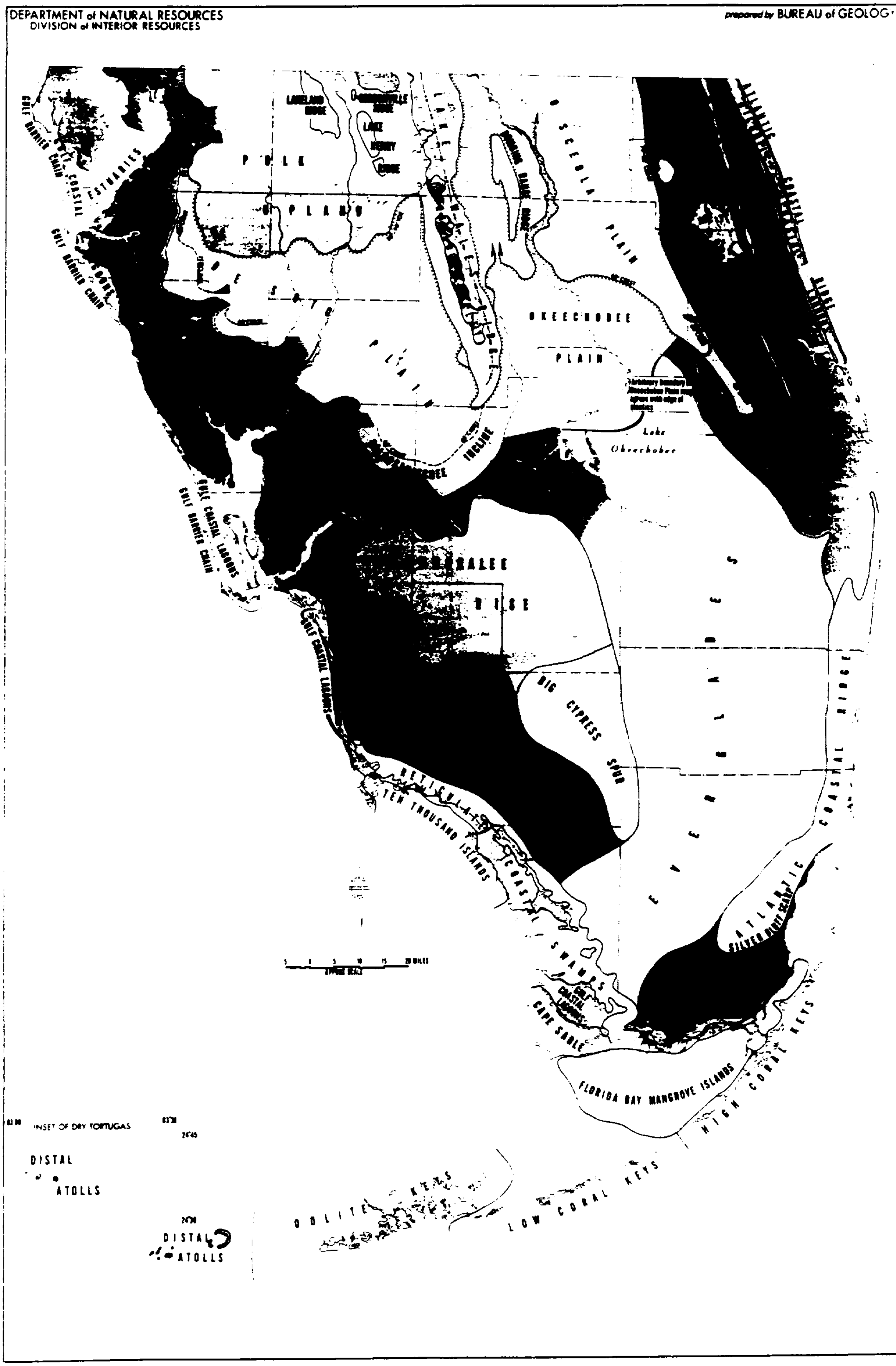
THE GEOMORPHOLOGY OF THE FLORIDA PENINSULA

By
William A. White

Published for
BUREAU OF GEOLOGY
DIVISION OF INTERIOR RESOURCES
FLORIDA DEPARTMENT OF NATURAL RESOURCES

Tallahassee, Florida
1970

CONTENTS



I-C. PHYSIOGRAPHIC MAP OF SOUTH PENINSULA FLORIDA

Reference 5

SOIL SURVEY OF

Broward County Area, Florida

United States Department of Agriculture
Soil Conservation Service

In cooperation with

University of Florida
Institute of Food and Agricultural Sciences
Agricultural Experiment Stations
Soil Science Department

Contents

Issued July 1976

SOIL SURVEY OF BROWARD COUNTY AREA, FLORIDA

BY ROBERT F. PENDLETON, HERSHEL D. DOLLAR, AND LLOYD LAW, JR.,
SOIL CONSERVATION SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, IN COOPERATION WITH UNIVERSITY OF FLORIDA, INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES, AGRICULTURAL EXPERIMENT STATIONS, SOIL SCIENCE DEPARTMENT

BROWARD COUNTY AREA is in Broward County and the southeastern part of Florida (fig. 1). It has a total land area of 189,273 acres or about 296 square miles. Fort Lauderdale is the county seat of Broward County. The survey area is bounded by Dade County on the south, a conservation area on the west, Palm Beach County on the north, and an area defined along Range line 42–43E to Atlantic Boulevard, west on Atlantic Boulevard to Powerline Road, south on Powerline Road to Oakland Park Boulevard, west on Oakland Park Boulevard to Sunshine Parkway, and south on the Sunshine Parkway to the Dade County line.

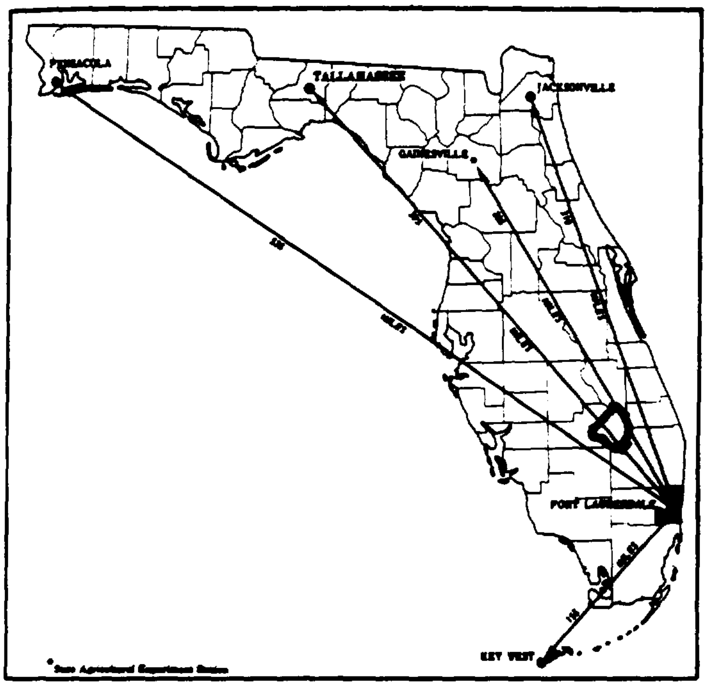


Figure 1.—Location of Broward County Area in Florida.

Most of the survey area is low, nearly level land at an elevation of 2 to 10 feet above sea level. Two sand ridges are in the area. One is a coastal ridge that extends from Palm Beach County and ends south of Pompano. The other is known as Pine Island and is west of Davie and north of Cooper City. This ridge consists of only about 400 acres but is at the highest elevation, 29 feet, in the Area. The average temperature is 75.4° F. Rainfall is abundant, but is unevenly distributed.

The county had a population of 620,000 people in 1970.[1] Almost all of the people live east of the conservation area.

Generally, farm activity has diminished, but some citrus crops, winter truck crops, and cattle are produced.

The Area is very popular with tourists and retired persons because of the warm climate in winter and the various available recreational facilities.

How This Survey Was Made

Soil scientists made this survey to learn what kinds of soil are in the Broward County Area, where they are located, and how they can be used. The soil scientists went into the county knowing they likely would find many soils they had already seen and perhaps some they had not. They observed the steepness, length, and shape of slopes, the size and speed of streams, the kinds of native plants or crops, the kinds of rock, and many facts about the soils. They dug many holes to expose soil profiles. A profile is the sequence of natural layers, or horizons, in a soil; it extends from the surface down into the parent material that has not been changed much by leaching or by the action of plant roots.

The soil scientists made comparisons among the profiles they studied, and they compared these profiles with those in counties nearby and in places more distant. They classified and named the soils according to nationwide, uniform procedures. The *soil series* and the *soil phase* are the categories of soil classification most used in a local survey.

Soils that have profiles almost alike make up a soil series. Except for different textures in the surface

[1] *This figure is taken from statistical data of the U.S. Department of Commerce, Bureau of the Census.*

cation exchange capacity and then multiplying by 100.

Organic matter was determined by a modification of the Walkley-Black wet-combustion method as outlined in procedure 6A1a. Total nitrogen was obtained by the semi-micro Kjeldahl method as shown in procedure 6B2a. Resistivity (ohm/em) or an "R" value was obtained using a Model 100 Corrosion Tester. The corrosion potential or a "C" value that was obtained from the manufacturer's tables is directly related to the "R" value. The smaller the "C" value, the less the corrosion and the greater the expectancy of pipe life. Generally, C values range from 1 to 10, and pipe life ranges accordingly from 20 to 2 years.

Bulk density, hydraulic conductivity (saturated), and water retention at 0.10 and 0.33 bar were measured on 3 by 5.4 centimeter cylindrical (undisturbed) soil cores. Water retention at 15-bar suction was determined on disturbed or loose soil samples by procedure 4B2.

Water retention difference was calculated using the formula

$$\text{WRD (in/in)} = \frac{\frac{1}{3} - (\text{or } \frac{1}{10}) \text{ bar } \% - 15 - \text{bar } \%}{100}$$

x bulk density, moist. $\frac{1}{10}$ bar was used for sandy soils and $\frac{1}{3}$ bar for organic soils. Water retention difference is considered by many to closely approximate available water capacity.

Additional Facts About the Area

Soil is intimately associated with its environment. The interaction of all factors determines the overall behavior of a soil for a given use. This section discusses briefly the major factors of the environment other than those that affect the use and management of soils. The factors discussed are climate; transportation, markets, and farming; water supply and natural resources; and physiography and drainage.

Climate [10]

The climate of Broward County is characterized by long, warm, humid summers and mild winters. The moderating influence of the waters of the Atlantic on maximum temperatures in summer and minimum temperatures in winter is quite strong along the immediate coast but diminishes noticeably a few miles inland. The moderation of the coastal winter temperatures gives this section of the survey area a tropical climate (temperatures of coldest month higher than 64.4° F), while the rest is designated as humid subtropical.

Rainfall also has a much greater variation in an east-west direction than it has in a north-south direction. Precipitation occurs during all seasons but on the basis of mean monthly totals of precipitation, a rainy season of 5 months from June through October brings nearly 65 percent of the annual rainfall and a relatively dry season of 5 months from November through March produces only about 20 percent of the annual total. Average annual rainfall totals range from 60 inches along the coastal sections to nearly 64 inches a few miles inland, and then diminish to 50 inches along the western border of Broward County.

Most summer rainfall comes from showers and thunderstorms of short duration. They are sometimes heavy, with 2 or 3 inches of rain falling within a period of 1 to 2 hours. Day-long rains in summer are rare. When they occur, they are almost always associated with tropical storms. Winter and spring rains are not generally so intense as summer thundershowers. A 24-hour rainfall of almost 9 inches may be expected to occur sometime during the year in about 1 year in 10 on the average.

Hail falls occasionally in thunderstorms but the hailstones are generally small and seldom cause much damage. Fourteen tornadoes were reported in Broward County during the 12-year period 1959–71.

Temperature and precipitation data for the period 1962–71 are shown in table 17. The data recorded at the Fort Lauderdale Experiment Station are representative of weather conditions in the eastern section of Broward County, but away from the immediate influences of the Atlantic. Table 18 gives a comparison with other weather stations within Broward County. The Experiment Station is located 5 miles southwest of the Fort Lauderdale Post Office, while the Dixie Water Plant is within the city limits, 2 miles southwest of the Post Office. The Bahia Mar observations are taken at the Yacht Club on the ocean, 3 miles east of the Post Office. North New River Canal No. 2 is a weather station that collects rainfall data only. It is located on the northern border of the county, centered midway between its eastern and western boundaries.

Summer temperatures have few day-to-day variations, and temperatures as high as 98° F. are rare. In 45 years of record at the Dixie Water Plant, only one reading of 100° has been recorded. Twenty years of observation show a record high of 98° at the Experiment Station and 96° at Bahia Mar.

Winter minimum temperatures have considerable day-to-day variations due largely to periodic invasions of cold, dry air that has moved southward from Canada. At the Experiment Station, temperatures of 32° or below have been observed on only 11 days during the past 10 years. In 3 of the 10 years, no freezing temperatures have been observed. Data from stations run by the Federal-State Frost Warning Service show that in the 30-year period 1937–67, there were 25 nights on which the temperatures reached 32° or below the coast, and 75 nights inland along the western edge of Broward County. Calculations show that in the same period there were 100 hours with temperatures of 32° or below along the coast, increasing to 300 hours inland. The lowest temperature reported in the Fort Lauderdale area during the last 45 years was 28°. Table 19 gives the record of low temperatures at Davie, a Frost Warning Station located in the interior southeastern section of Broward County. This temperature record can be considered representative of the climate for truck farming in the eastern sections of the survey area.

[10] By JAMES T. BRADLEY, climatologist for Florida, National Weather Service, U.S. Department of Commerce. For convenience in presentation this section includes climate data for all of Broward County.

TABLE 19.—*Record of low temperatures*

[Period of

Temperature	Percent of seasons at or below various temperatures before—						
	November 20	December 10	December 30	January 19	February 18	March 10	March 30
°F							
36	0	23	57	87	100	100	100
32	0	13	33	57	77	83	83
28	0	0	7	17	33	33	33
26	0	0	7	7	17	17	17
24	0	0	0	0	3	3	3

Four airports are available for use—Fort Lauderdale-Hollywood International Airport, Fort Lauderdale Executive Airport, Pompano Beach Airport, and North Perry Airport. Only Fort Lauderdale International Airport has scheduled commercial airline flights. The other airports are mostly for private planes.

The largest state owned fresh-vegetable market in Florida is the Pompano State Farmers' Market. This market handles vegetables from the survey area and from the southern part of Palm Beach County. Most of the citrus is processed in other counties. More grapefruit is consumed than is produced in the county.

Not much farming was practiced in the Broward County Area before 1910. Drainage was established with the formation of the Napoleon B. Broward Drainage District. After drainage was established, citrus groves were planted between the New River and South New River Canals. Most of the winter vegetable crops were grown in the same area, but planting soon spread primarily to the north as the area was developed (*9*). According to the 1950 Census of Agriculture, approximately 700 farms and 45 dairies were in Broward County in 1950. By 1969, the number had decreased to 291 farms and 8 dairies. Farming in the Area generally is still on the decrease.

This is one of the few places in the United States that has either a tropical or humid subtropical climate. A large percentage of the soils are nearly level, poorly drained, and infertile. Another fairly large group of soils are organic and nearly level, very poorly drained, and relatively fertile. With drainage and proper fertilization, all of these soils produce excellent winter truck crops.

The coastal areas have excellent facilities for fishing and boating.

Water Supply and Natural Resources

The water supply for the cities in the Broward County Area comes primarily from municipal wells. Many private wells are used mostly for watering lawns. Because porous limestone is below most of the soils, water can move laterally for long distances. The water in the canals can be regulated to help recharge the ground water during dry periods.

Although most of the Area receives about 60 inches of rainfall annually, this amount may not be sufficient to provide water needs in the future. The main alternate source could be Lake Okeechobee to the north of the survey area.

Climate is considered one of the most important natural resources of the Area.

Physiography and Drainage

The Broward County Area can be divided into three general parts based on differences in physiography and soils.

The western part is a nearly level, generally treeless sawgrass plain that appears to be flat. The soils are organic and overlie limestone. In many places the soils are shallow. Under natural conditions, water stood on these soils for months and only during extremely dry seasons was the surface exposed. Today, these soils have been drained, and water stands on the surface for only short periods. With drainage, the organic soils are subject to oxidation and subsidence. When exposed to air, organic matter is oxidized or slowly burned up, and this gradual loss of organic matter results in subsidence or a lowering of surface elevation. Also, during dry seasons, wildfires have burned some of the organic surface soil, and decreased the thickness of the organic material.

Very little of the organic soils are presently farmed. A few acres are in improved pasture. In recent years, after some drainage, several types of trees have become established. These trees are melaleuca, Australian pine, and waxmyrtle. One method used for developing the organic soils for urban use removes the organic material and adds fill consisting of rock or sand.

The central part consists of nearly level, grassy areas interspersed with small ponds. The soils here are wet and sandy and are underlain by limestone. Before drainage, water stood on these soils for several months each year. The original vegetation was water-tolerant grasses and a few cypress stands. In the higher areas, pine and palmetto were common. These areas are now farmed, and with drainage produce excellent pasture and truck crops.

This is also an area of rapid urban development. The underlying limestone is mostly porous, and water moves through it laterally for long distances. Water-control ditches can be further apart in these soils than in soils underlain by sand or loamy material. For urban *at Davie in Broward County*

record 1937–67]

Percent of seasons at or below various temperatures after—						
November 20	December 10	December 30	January 19	February 18	March 10	March 30
100	100	100	83	50	13	0
83	80	73	50	17	3	0
37	37	30	20	3	0	0
17	17	10	17	0	0	0
3	3	3	3	0	0	0

development, fill is commonly added to raise the elevation to such a level that water does not cover the soil surface.

The eastern part is made up of low, sandy ridges, a part of which is commonly referred to as flatwoods. The vegetation is mostly pine, palmetto, and native grasses. The flatwoods part is made up of deep, poorly drained, nearly level, sandy soils. These soils have been used mostly for truck crops and pasture, but are rapidly being developed for urban uses. They require drainage, and fill is added to low areas so that the entire acreage can be developed. The other part is made up of deep, excessively drained or well-drained, sandy soils, many of which, are developed for urban uses.

The major drainage systems in the Area flow from west to east and drain into the Atlantic Ocean. These systems are the Hillsboro Canal at the Palm Beach-Broward County line, the Pompano Canal at Margate, the Midriver Canal at Lauderhill, the North New River Canal at Davie, and C–9 at the Dade County line. These canals are under the control of the Central and Southern Florida Flood Central District.

Literature Cited

(1) American Association of State Highway Officials. 1961. Standard specifications for highway materials and methods of sampling and testing. Ed. 8, 2 v., illus.

(2) Bouyoucos, G. J. 1962. Hydrometer method improved for making particle size analyses of soils. Agron. Jour. 54: 464–465.

(3) Cooke, C., Wythe. 1945. Geology of Florida. Fla. State Dept. of Conserv. and Fla. Geol. Survey, Geol. Bul. 29, 339 pp., illus.

(4) Simonson, Roy W. 1962. Soil classification in the United States. Sci. 137, 1027–1034, illus.

(5) United States Department of Agriculture. 1951. Soil survey manual. U.S. Dept. Agr. Handb. No. 18, 503 pp., illus.

(6) ——— 1960. Soil classification, a comprehensive system, 7th approximation. 265 pp., illus. [Supplements issued in March 1967 and in September 1968]

(7) ——— 1972. Soil survey laboratory methods and procedures for collecting soil samples. Soil Survey Investigations Report No. 1 (Revised Edition).

(8) United States Department of Defense. 1968. Unified soil classification system for roads, airfields, embankments, and foundations. MIL–STD–619B, 30 pp., illus.

(9) Weidling, Philip and Burghard, August. 1966. Checkered sunshine; the story of Fort Lauderdale, 1793–1955. Gainesville, University of Florida Press, 296 pp., illus.

(10) Zelazny, L. W. and Fiskell, J. G. A. 1972. Acidic properites of some Florida soils ii. exchangeable and titratable acidity. Soil and Crop Science Society of Florida Proceedings 31: 149–154.

Glossary

Association, soil. A group of soils geographically associated in a characteristic repeating pattern.

Available water capacity (also termed available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil.

Base saturation. The degree to which material that has base-exchange properties is saturated with exchangeable cations other than hydrogen, expressed as a percentage of the cation-exchange capacity.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Complex, soil. A mapping unit consisting of different kinds of soils that occur in such small individual areas or in such an intricate pattern that they cannot be shown separately on a publishable soil map.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are—

Loose.—Noncoherent when dry or moist; does not hold together in a mass.

Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky.—When wet, adheres to other material, and tends to stretch somewhat and pull apart, rather than to pull free from other material.

Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft.—When dry, breaks into powder or individual grains under very slight pressure.

Cemented.—Hard and brittle; little affected by moistening.

Drainage class (natural). Refers to the conditions of frequency and duration of periods of saturation or partial saturation that existed during the development of the soil, as opposed to altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven different classes of natural soil drainage are recognized.

Reference 6

Water Resources of Southeastern Florida

By GARALD G. PARKER, G. E. FERGUSON, S. K. LOVE, *and others*

WITH SPECIAL REFERENCE TO THE GEOLOGY AND GROUND WATER OF THE MIAMI AREA

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1255

Prepared in cooperation with the Florida Geological Survey, Dade County, cities of Miami and Miami Beach, and other agencies

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1955

Figure 25. --Close-up view of one o. the larger solution holes in Dade County.

and downward movement of corrosive waters. (See figs. 15, 25 and 26)

Apparently, no original cavity is needed to start a solution hole, though the existence of a ready-made hole hastens the process. It has been suggested that many vertical solution holes begin to be dissolved along taproots of trees, and possibly some holes do originate in this fashion, but it is not the most common way. On the surface of hard limestone or soft calcareous clayey marl the first effects of solution appear as small surficial pits resembling raindrop marks in mud. These pits gradually deepen, many retaining their rounded outlines. Without visible outlet along the sides or bottom, they later become tubes which enlarge into holes of various shapes and sizes, but generally they develop vertically.

The work of solution is evident wherever outcrops of rock occur, as on the bare limestone surface south of Miami or in the Big Cypress Swamp, in canals and street cuts, in borrow ditches and rock quarries, or in river and creek banks. In large areas of southern Florida it is evident that at least one-fourth of the total volume of limestone, once more or less solid rock, is now occupied by solution holes, generally filled with sand. (See fig. 26.) Trees blown over by hurricanes rip up rock with their roots, thus leaving a new and localized depression for concentration of rain water and the start of active solution holes. Adjacent holes enlarge, coalesce, and become increasingly effective in draining surface water underground. Many solution depressions of this kind,

Reference 7

?CE . Environmental Science Services Administration . Environmental Data Service

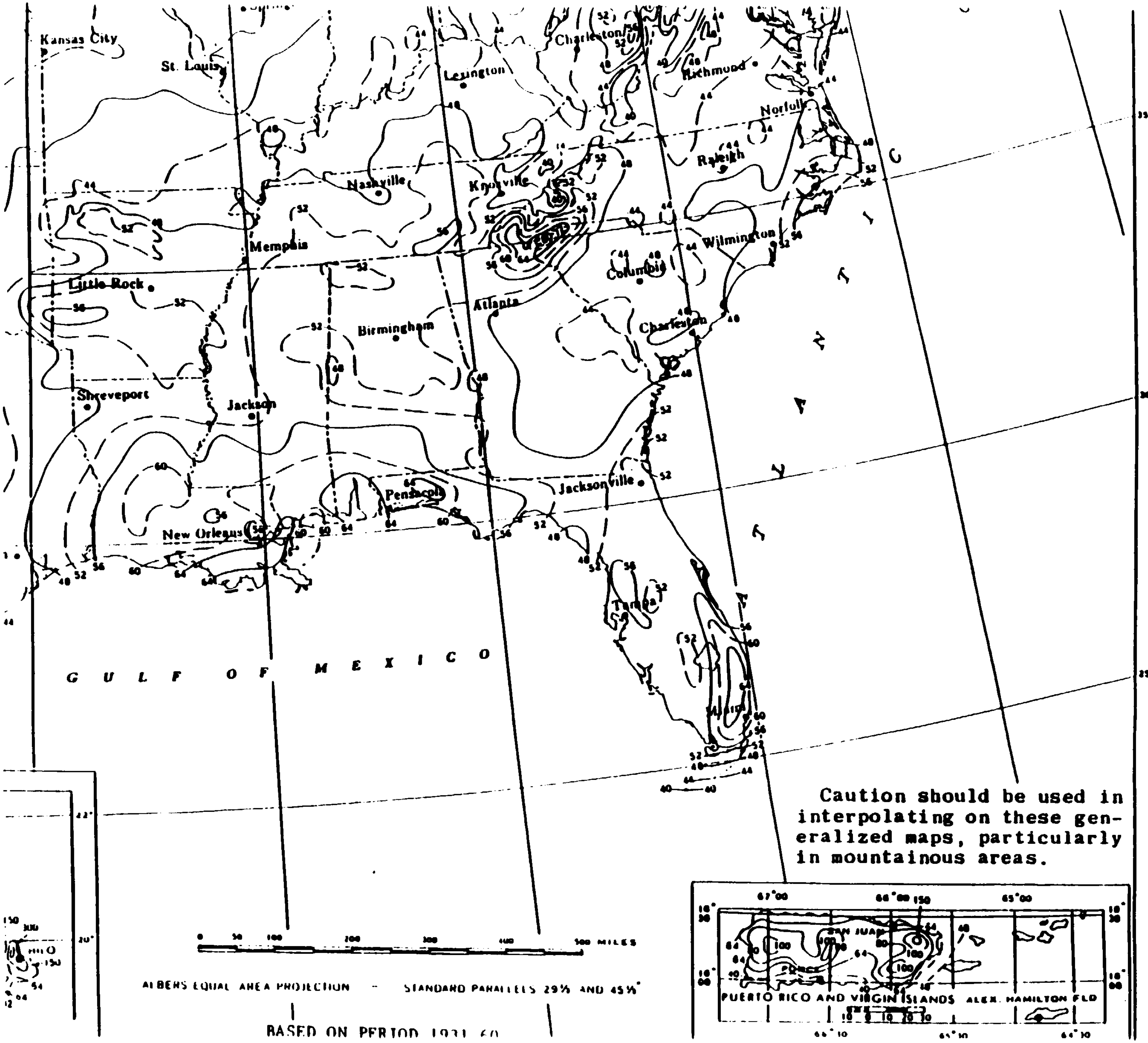
U.S. DEPARTMENT OF COMMERCE
C. R. Smith, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
Robert M. White, Administrator

ENVIRONMENTAL DATA SERVICE
Woodrow C. Jacobs, Director

JUNE 1968

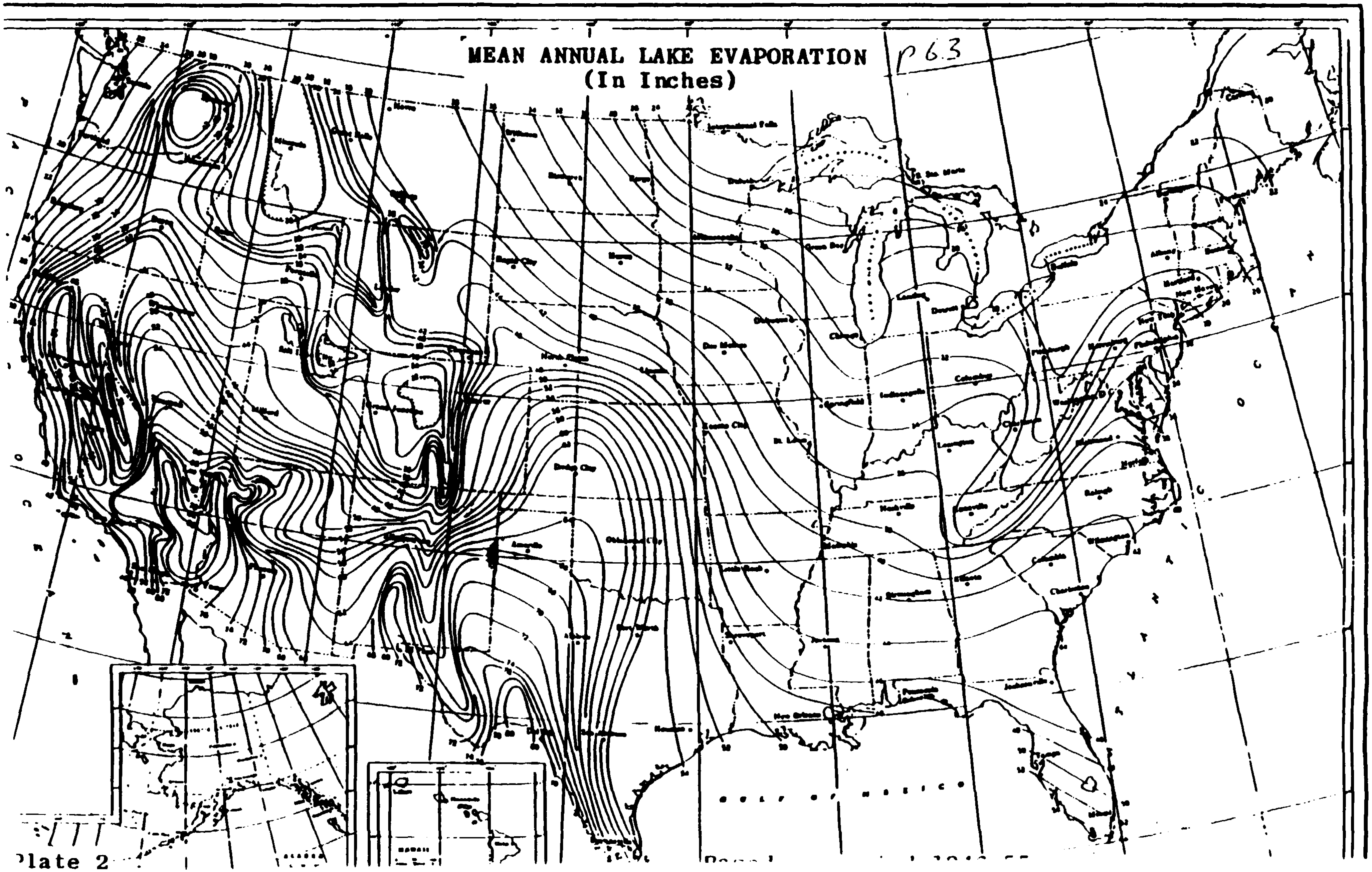
REPRINTED BY THE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
1983



Caution should be used in interpolating on these generalized maps, particularly in mountainous areas.

Normal Annual Total Precipitation (Inches) p.

KE EVAPORATION



late 2

Reference 8

COMMERCE

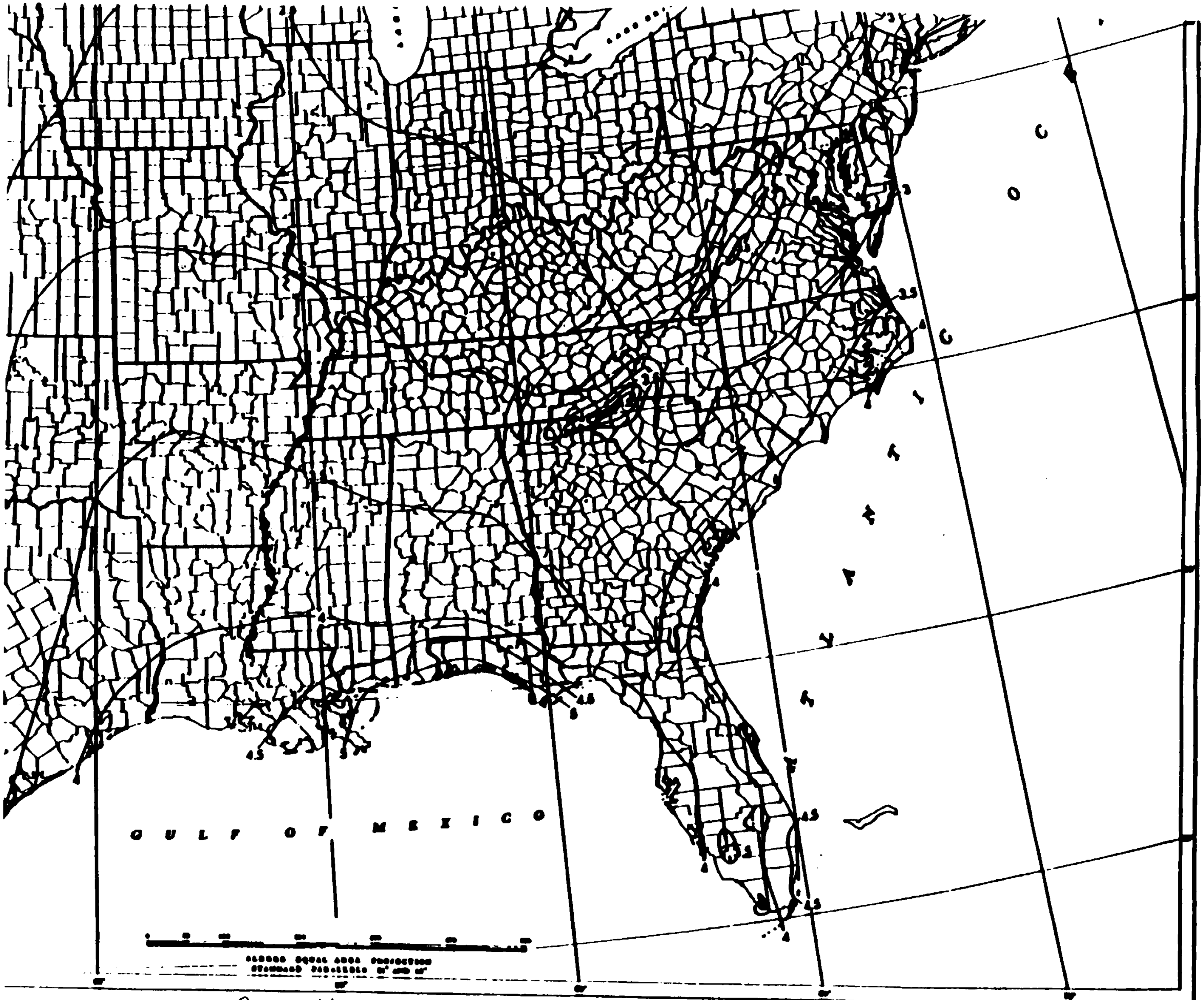
WEATHER
F. W. Reich.

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture



Rainfall Frequency Atlas

Reference 9

GEOLOGY OF THE SURFICIAL AQUIFER SYSTEM

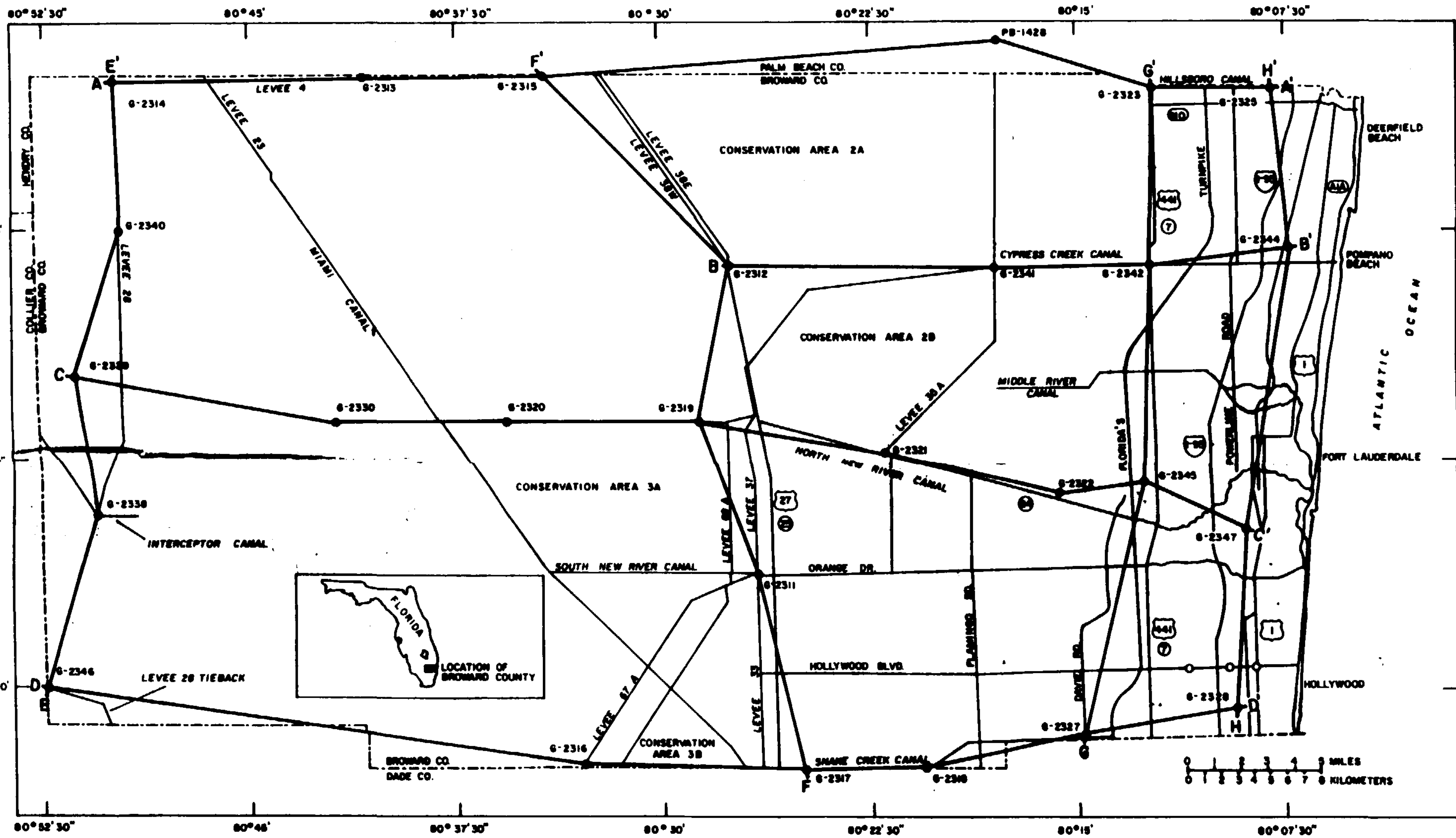
BROWARD COUNTY, FLORIDA

LITHOLOGIC LOGS

By Carmen R. Causarás

U.S. GEOLOGICAL SURVEY

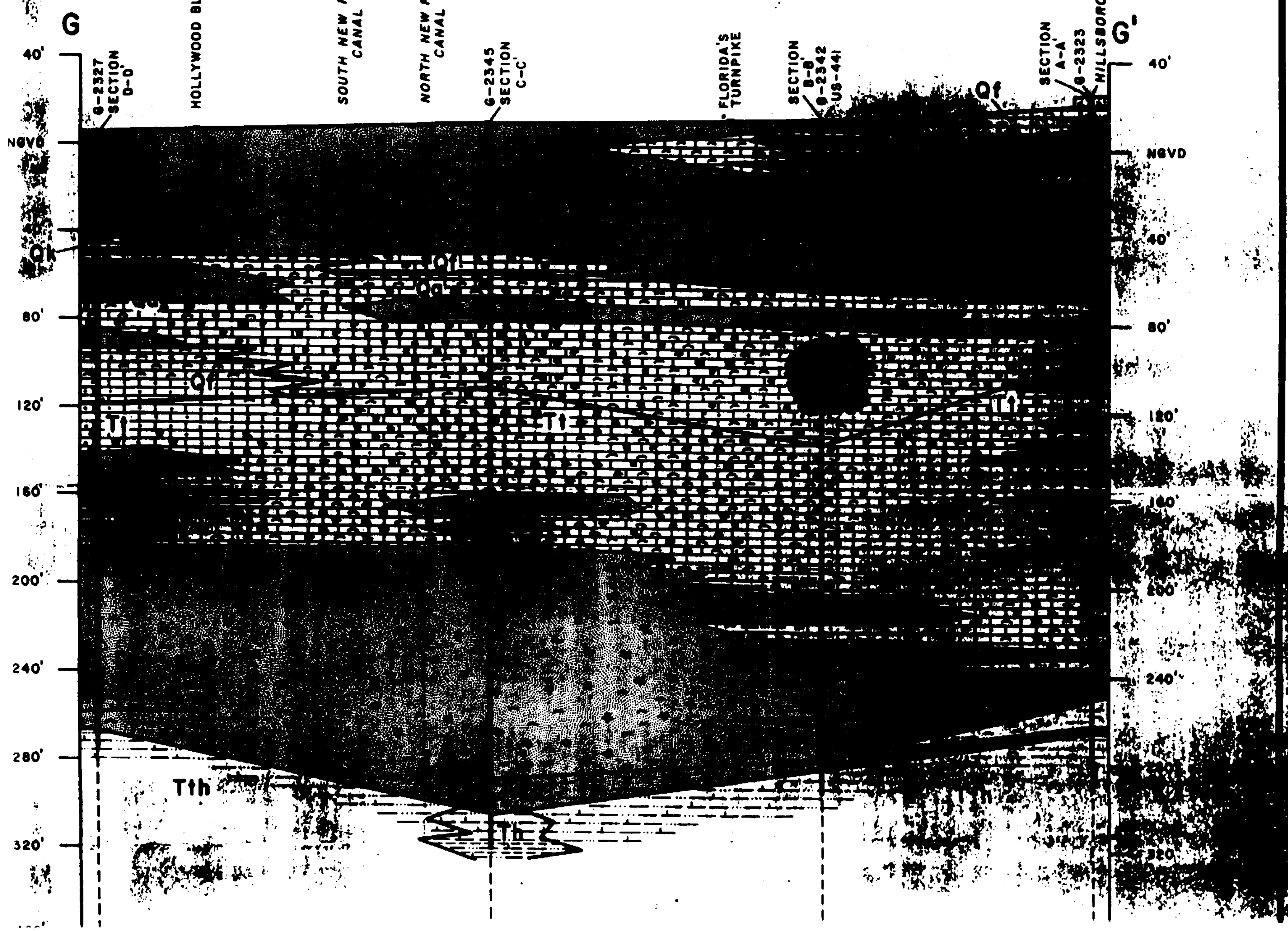
WATER-RESOURCES INVESTIGATIONS REPORT 84-4068

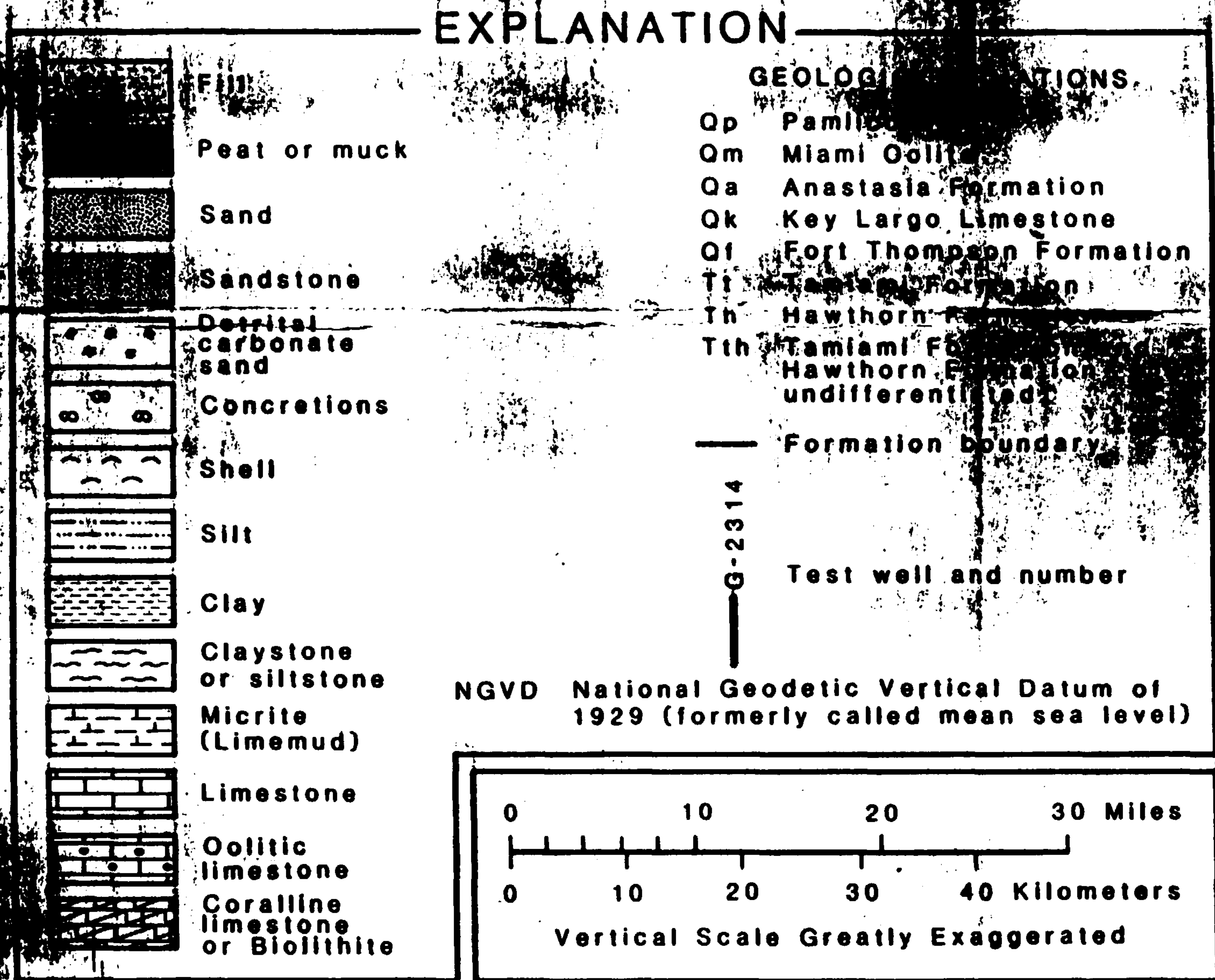


EXPLANATION

A—●———●—A' LOCATION OF GEOLOGIC SECTION

● G-2347 TEST WELL AND NUMBER

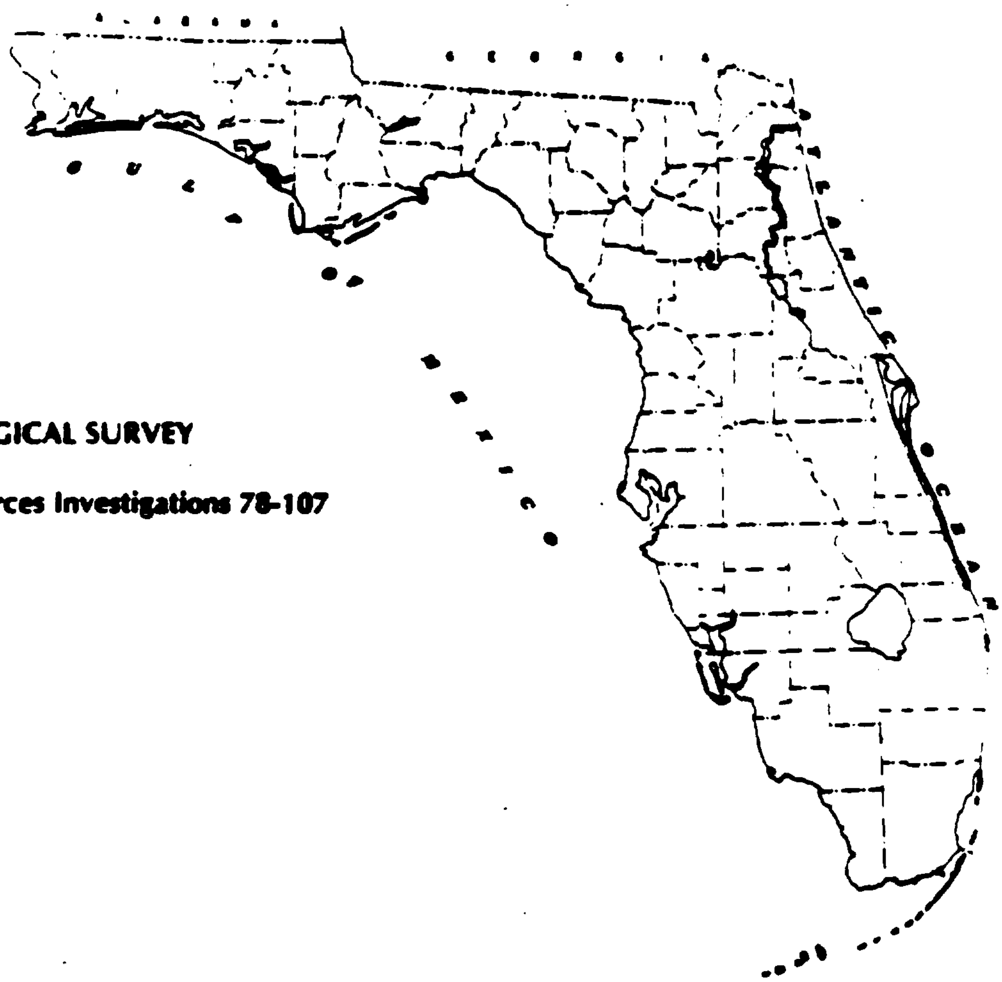

G
G'
40'
NGVD
40'
80'
120'
160'
200'
240'
280'
320'
G-2327
SECTION
D-D'
HOLLYWOOD BLVD
SOUTH NEW RIVER CANAL
NORTH NEW RIVER CANAL
G-2345
SECTION
C-C'
FLORIDA'S TURNPIKE
SECTION
B-B'
G-2342
US-441
SECTION
A-A'
G-2323
HILLSBORO CANAL
Qk
Qf
Qa
Tt
Tth
Th


EXPLANATION
Fill
Peat or muck
Sand
Sandstone
Detrital carbonate sand
Concretions
Shell
Silt
Clay
Claystone or siltstone
Micrite (Limemud)
Limestone
Oolitic limestone
Coralline limestone or Biolithite
Qp
Qm Miami
Qa Anastasia Formation
Qk Key Largo Limestone
Qf Fort Thompson Formation
Tt
Th Hawthorn
Tth
Formation boundary
G-2314
Test well and number
NGVD National Geodetic Vertical Datum of 1929 (formerly called mean sea level)
0 10 20 30 Miles
0 10 20 30 40 Kilometers
Vertical Scale Greatly Exaggerated

Reference 10

WRI 78-107

BISCAYNE AQUIFER, SOUTHEAST FLORIDA



U.S. GEOLOGICAL SURVEY

Water-Resources Investigations 78-107

Prepared in cooperation with
U.S. ENVIRONMENTAL PROTECTION AGENCY

WRI 78-107 BISCAYNE AQUIFER, SOUTHEAST FLORIDA

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9. Performing Organization Name and Address U.S. Geological Survey 7815 Coral Way, Suite 110 Miami, Florida 33155			10. Project/Task/Work Unit No.
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12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division 325 John Knox Road, Suite F-240 Tallahassee, Florida 32303			13. Type of Report & Period Covered
			14.

15. Supplementary Notes

Prepared in cooperation with the U.S. Environmental Protection Agency

16. Abstracts Peak daily pumpage from the highly permeable, unconfined Biscayne aquifer for public water-supply systems in southeast Florida in 1975 was about 500 million gallons. Another 165 million gallons was withdrawn daily for irrigation. Recharge to the aquifer is primarily by local rainfall. Discharge is by evapotranspiration, canal drainage, coastal seepage, and pumping. Pollutants can enter the aquifer by direct infiltration from land surface or controlled canals, septic-tank and other drainfields, drainage wells, and solid-waste dumps. Most of the pollutants are concentrated in the upper 20 to 30 feet of the aquifer; public supply wells generally range in depth from about 75 to 150 feet. Dilution, dispersion, and adsorption tend to reduce the concentrations. Seasonal heavy rainfall and canal discharge accelerate ground-water circulation, thereby tending to dilute and flush upper zones of the aquifer. The ultimate fate of pollutants in the aquifer is the ocean, although some may be adsorbed by the aquifer materials en route to the ocean, and some are diverted to pumping wells.

17. Key Words and Document Analysis. 17a. Descriptors

Southeast Florida, Aquifer characteristics, *Ground-water quality, *Municipal water systems, *Water pollution, Urban runoff, Septic-tank effluent, Leachate, *Ground-water flow, Dilution, Unconfined ground water

17b. Identifiers/Open-Ended Terms

Dade County, Broward County, *Biscayne aquifer, Sole-source aquifer, Safe Drinking Water Act

17c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 37
	20. Security Class (This Page) UNCLASSIFIED	22. Price

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For additional information write to:

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325 John Knox Road
Suite F-240
Tallahassee, Florida 32303

BISCAYNE AQUIFER

Description

The Biscayne aquifer supplies all municipal water supply systems from south Palm Beach County southward (fig. 1), including the system for the Florida Keys which is supplied chiefly by pipeline from the mainland. It is a highly permeable wedge-shaped unconfined aquifer that is more than 200 ft (feet) thick in coastal Broward County and thins to an edge 35 to 40 mi (miles) inland in the Everglades (fig. 2). The aquifer forms an important unit of the hydrologic system of southeast Florida (fig. 3), which is managed by the South Florida Water Management District (SFWMD).

The Biscayne aquifer is composed of limestone, sandstone, and sand. In south and west Dade County the aquifer is primarily limestone and sandstone, but in north Dade County, Broward County and south Palm Beach County the aquifer is primarily sand. Generally, the sand content increases to the north and east.

In Dade County (fig. 4) oolitic limestone and quartz sand form the upper part of the aquifer (Parker and others, 1955, Plate 4). The limestone is thickest along the coast, possibly as much as 40 ft., but the base is usually less than 20 ft below sea level. Inland, the oolitic limestone thins and then disappears beneath the peat soil of the Everglades. Oolitic limestone is usually cross-bedded.

Fine to medium grained sand fills solution cavities in the oolitic limestone. Parker and others (1955, p. 102) indicated that the solution cavities occupy a significant volume of the limestone, causing it to have high horizontal and vertical permeabilities. It is the high vertical permeability that permits rapid infiltration of rainfall to the water table. Where the limestone does not crop out, it is covered by quartz sand (fig. 4) which also permits rapid infiltration of rainfall.

In the east part of Dade County, extending north as far as Fort Lauderdale, the lower part of the oolitic limestone contains bryozoans (Hoffmeister, 1974, p. 39). The bryozoan section slopes upward to the west to emerge at the surface in the Everglades. Near the coast the bryozoan section is as much as 10 ft thick (Hoffmeister, 1974, p. 39); it thins to the west beyond the east boundary of Collier County. The bryozoan limestone is also riddled with cavities which contribute to its high horizontal and vertical permeability.

Below the bryozoan layer, the Biscayne aquifer is composed of hard limestone containing numerous cavities, often cavernous. Because of the extremely high permeability of this limestone, all large-capacity wells are completed in this part of the aquifer, generally 40 to 100 ft below the land surface. The cavernous section generally does not contain loose sand. The aquifer does, however, contain thin interbedded layers of hard, dense limestone in south Dade County, interior parts of Dade County and southwest Broward County. The dense layers probably are discontinuous and may locally retard, but do not prevent the vertical circulation of ground water. Beneath the coastal areas unconsolidated quartz sand separates the bryozoan limestone from the deeper hard limestone. The sand content increases northward which results in a corresponding decrease in overall transmissivity of the aquifer.

Parker and others (1955, p. 160) stated that the Biscayne aquifer "is the most productive of the shallow nonartesian aquifers in the area and is one of the most permeable in the world". He suggested that in east Dade County the transmissivity (hydraulic conductivity x saturated thickness = transmissivity) of the aquifer ranges from 4 to 15 million gallons per day per foot (Mgal/d/ft) ($5.x10^5$ to $2.0x10^6$ ft^2/d). He applied a median value of 5 (Mgal/d/ft) ($6.7x10^5$ ft^2/d) (Parker and others, 1955, p. 270). These values were obtained from aquifer tests using high-capacity wells, and by analyzing water-table contours adjacent to canals and in well-field areas. Storage coefficients from aquifer tests ranged from 0.047 to 0.247 (Parker and others, 1955, table 16).

The approximate areal distribution of transmissivity of the aquifer is shown in figure 5. Along the coast and in the northern part of southeast Florida the aquifer is thickest, but because it is composed mainly of sandy material, the transmissivity is lower. In central and south Dade County the aquifer is thinner, but the hydraulic conductivity is high because of the cavernous limestone; the transmissivity is, therefore, high. The decrease in transmissivity to the west is due to the thinning of the aquifer.

The transmissivity ranges from about 3 Mgal/d per foot ($4.0x10^5$ ft^2/d) in southeast Broward County to 0.4 Mgal/d per foot ($5.4x10^4$ ft^2/d) in the northeast coastal Broward County (Sherwood and others, 1973, p 66-67) and in the vicinity of Boca Raton (McCoy and Hardee, 1970, p. 25). Values increase to about 4 Mgal/d per foot ($5.4x10^5$ ft^2/d) (Sherwood and others, 1973, p. 66) in interior parts of southern Broward County. In Boca Raton, fine and medium sand extends to at least 60 ft below the surface. Permeable limestone at greater depth is discontinuous and becomes increasingly sandy north of Boca Raton (McCoy and Hardee, 1970, p. 7-11). Storage coefficients in Broward County are as high as 0.34 (Sherwood and others, 1973, p. 67).

Soil Cover

The soil that covers southeast Florida is of hydrologic importance because it controls the infiltration of rainfall, the operation of septic tanks, and indirectly relates to the quality of the ground water. The infiltration of rainfall is rapid in areas covered by sand or where soil is absent; infiltration is retarded in areas covered by marl or clayey soil.

In the agricultural areas of south and interior Dade County, irrigation wells are usually rotary drilled to depths of 25 to 35 ft. Casing is not required because the aquifer is solely limestone. Hundreds of these wells are drilled at spacings as small as 300 ft. A large capacity irrigation pump mounted on a truck is moved from well to well and each is pumped for short intervals at rates of 500 to 1,000 gpm.

Thousands of small diameter (2-inch) wells are used throughout the year for irrigation of residential lawns and shrubs. These wells, about 20 to 50 ft deep, are normally pumped at rates of 25 to 40 gpm. In areas near the coast or adjacent to tidal canals no fresh ground water is available so residences use municipal water for lawn irrigation. Shallow wells of small diameter are also used for domestic supplies in areas not serviced by municipal systems.

Recharge and Discharge

The Biscayne aquifer is recharged principally by rainfall. The average annual rainfall in the lower east coast area varies areally from 58 to 64 in; the annual extremes experienced are 29 in and 106 in (Leach and others, 1972, p. 9-10). The rainy season, June - October, contributes about 70 percent of the total. During this period heavy rains are associated with tropical disturbances and frequent short, local downpours. Light to moderate rainfall during the dry season is associated with cold fronts moving southward through Florida.

The oolitic limestone and sand that form the upper surface of the aquifer readily absorb rainfall and move it rapidly to the water table. The rapid response of the water table to rainfall in the Miami area is indicated in figure 9. Infiltration of rainfall is retarded but not prevented in interior parts of Dade and Broward Counties where thin marl deposits cover the surface, and along the shallow elongate depressions that dissect the urban area. Other sources of recharge to the aquifer are: (1) Connate ground water of inferior quality (Parker and others, 1955, fig. 221) along the upper reaches of the Miami, the North New River, and the Hillsboro Canals in Broward and Palm Beach Counties (northwest of the limits of the Biscayne aquifer) that is transferred eastward during dry seasons; (2) Water from Lake Okeechobee released by the SFWMD into the Miami Canal during the later weeks of the dry seasons to replenish the Miami area; and (3) Effluent from septic tanks, certain sewage treatment plant and disposal ponds scattered throughout the urban area.

Parker and others (1955) and Meyer (1971) estimated that 20 in of the approximately 60 in of annual rainfall in Dade County is lost directly by evaporation, about 20 in is lost by evapotranspiration after infiltration, 16 to 18 in is discharged by canals and by coastal seepage, and the remainder is utilized by man. Sherwood and others (1973, p. 49) indicated comparable values for Broward County. Thus, nearly 50 percent of the rainfall that infiltrates the Biscayne aquifer is discharged to the ocean, a reflection of the high degree of connection between the aquifer and the canal system.

Reference 11

STATE [illegible]

FLORIDA GEOLOGICAL SURVEY

REPORT OF INVESTIGATIONS NO. 17

BISCAYNE [illegible]
[illegible] AND [illegible], FLORIDA

By

[illegible] and NEVIN D. HOY

U.S. [illegible]

REF.

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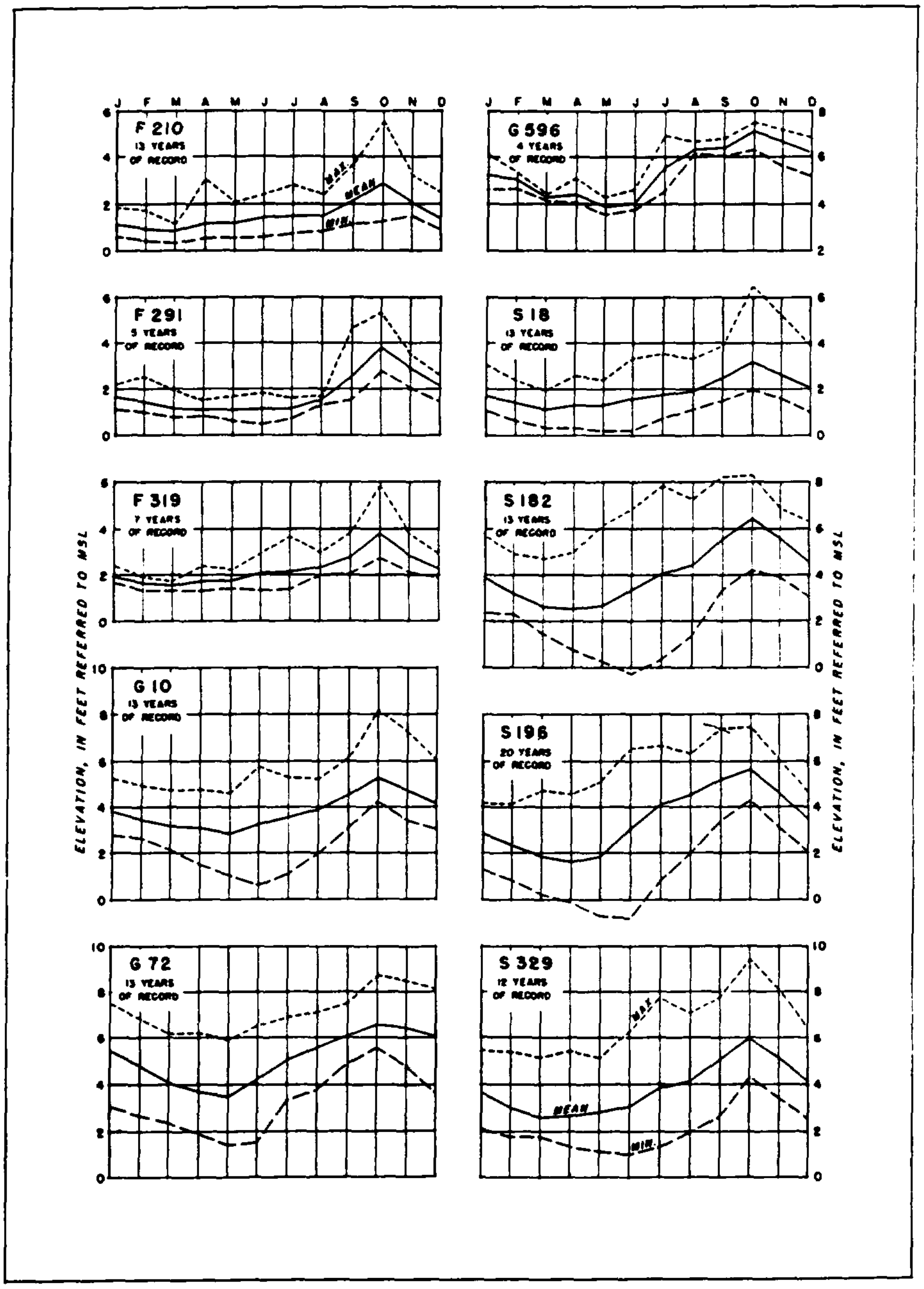

Figure 12. Chart of comparative average monthly water levels in selected wells.

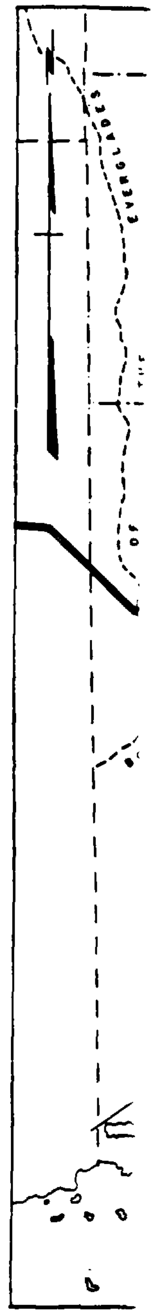

Figure 1

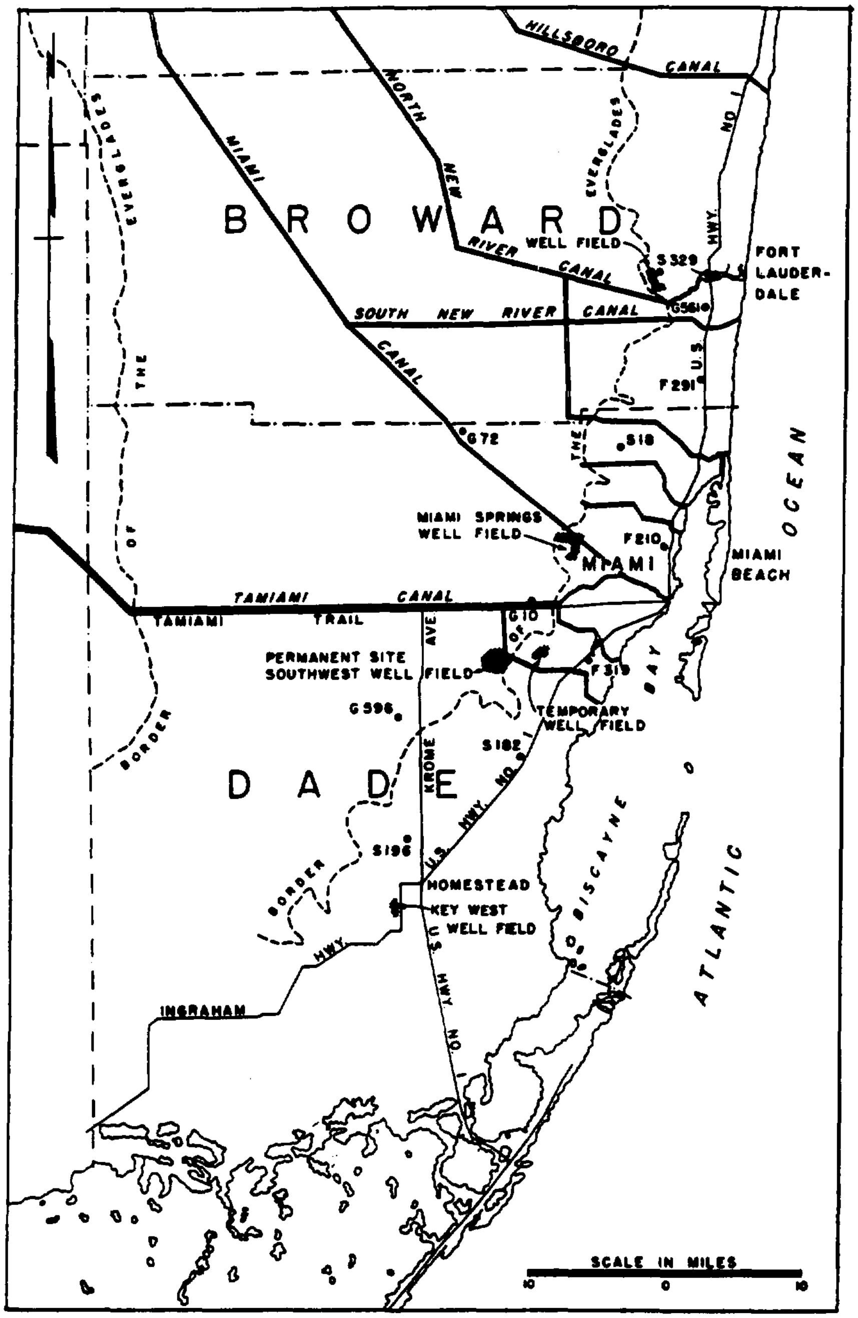

Figure 13. Map showing location of certain observation wells and locations of large municipal well fields.

p. 519-524) and as reported by Parker (Parker, Ferguson, Love, and others, 1955, p. 239-274) are summarized in the following table (see fig. 14 for location of test sites).

Test site	*Range in computed coefficient of transmissibility (gpd/ft)* Lowest	Highest
S 1	3,250,000	4,300,000
G 551	9,000,000	14,000,000
G 552	2,800,000	5,700,000
G 553	2,500,000	3,900,000
G 218	3,900,000	4,400,000

At all the test sites the Miami oolite forms the upper part of the Biscayne aquifer, and at most of them it is underlain by a bed of sand. The permeability of the oolite and sand is lower than that of the underlying cavernous limestone of the Fort Thompson formation and thus acts as a leaky roof during the pumping of a well, and the formation initially acts as an artesian aquifer. The Bessel function then can be used in the computations using formulas developed by Jacob (1945, p. 198-208). John G. Ferris (1950, personal communcation) determined the following values from the test data:

Well No.	*Coefficient of transmissibility (gpd/ft)*
S 1	3,200,000
G 551	9,700,000
G 552	3,200,000
G 553	3,200,000

The T value of the test for well G 551 by both calculations is inconsistent with the values for the other tests. The results of the other three tests using the Bessel function are extraordinarily consistent considering the character of the aquifer. The permeability of the Biscayne aquifer probably averages between 50,000 and 70,000 gallons per day per square foot, according to Parker (1951). No satisfactory computation of the storage coefficient has yet been obtained.

Several assumptions concerning the aquifer must be applied in using formulas to determine these coefficients: (1) the aquifer is homogeneous and isotropic and transmits water with equal readiness in all directions; (2) the discharging well penetrates the entire thickness of the aquifer; (3) there is no turbulent flow within the aquifer, and during the pumping there is no vertical convergence of flow lines toward the pumped well; and (4) water is discharged from storage instantaneously with reduction in head.

Reference 12

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University of Waterloo
Waterloo, Ontario

GROUNDWATER

Prentice-Hall, Inc.
Englewood Cliffs, New Jersey 07632

[redacted]

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Table 2.2 Range of Values of Hydraulic Conductivity and Permeability

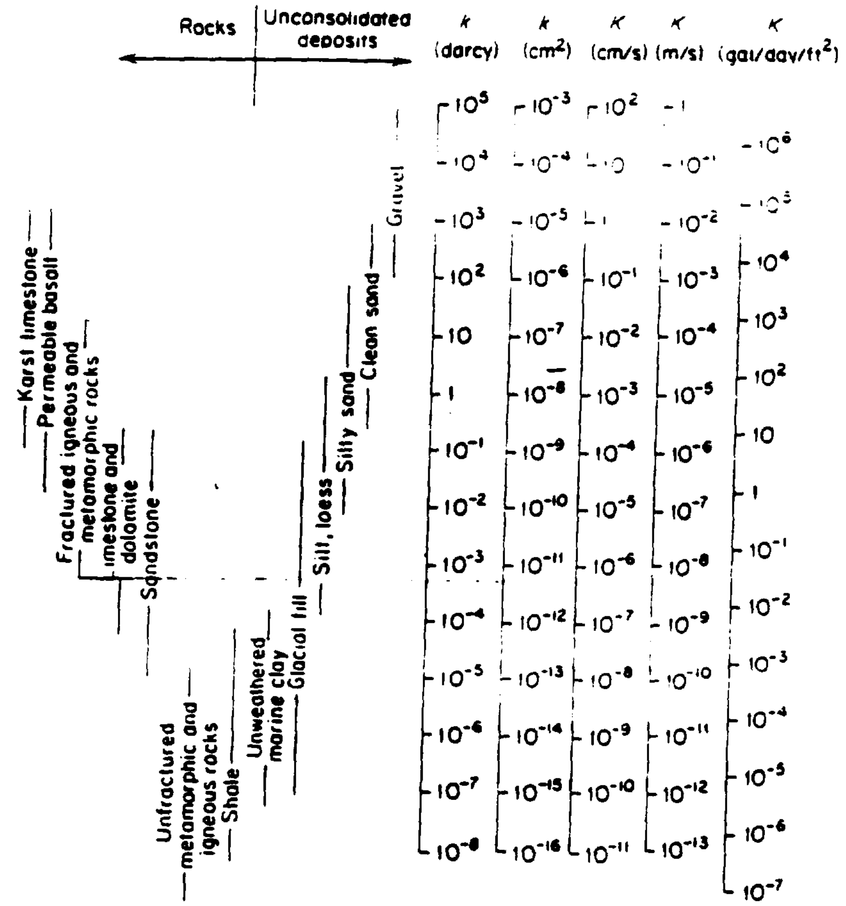


Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

	Permeability, k*			Hydraulic conductivity, K		
	cm²	ft²	darcy	m/s	ft/s	U.S. gal/day/ft²
cm²	1	1.08×10^{-3}	1.01×10^{8}	9.80×10^{2}	3.22×10^{3}	1.85×10^{9}
ft²	9.29×10^{2}	1	9.42×10^{10}	9.11×10^{5}	2.99×10^{6}	1.71×10^{12}
darcy	9.87×10^{-9}	1.06×10^{-11}	1	9.66×10^{-6}	3.17×10^{-5}	1.82×10^{1}
m/s	1.02×10^{-3}	1.10×10^{-6}	1.04×10^{5}	1	3.28	2.12×10^{6}
ft/s	3.11×10^{-4}	3.35×10^{-7}	3.15×10^{4}	3.05×10^{-1}	1	6.46×10^{5}
U.S. gal/day/ft²	5.42×10^{-10}	5.83×10^{-13}	5.49×10^{-2}	$4.72 \times 10^{-}$[illegible]	1.55×10^{-6}	1

*To obtain k in ft², multiply k in cm² by 1.08×10^{-3}.

Freeze, R.A., and J.A. Cherry, "Groundwater," Prentice-Hall, Inc., Englewood Cliffs, NJ, 1979

Reference 13

STATE OF FLORIDA
DEPARTMENT OF NATURAL RESOURCES
Harmon Shields, *Executive Director*

DIVISION OF INTERIOR RESOURCES
Charles M. Sanders, *Director*

BUREAU OF GEOLOGY
Charles W. Hendry, Jr., *Chief*

Report of Investigations No. 75

EVALUATION OF HYDRAULIC CHARACTERISTICS OF A DEEP ARTESIAN AQUIFER FROM NATURAL WATER-LEVEL FLUCTUATIONS, MIAMI, FLORIDA

REF

by
Frederick W. Meyer
U. S. Geological Survey

Prepared by the
UNITED STATES GEOLOGICAL SURVEY
in cooperation with the
BUREAU OF GEOLOGY
FLORIDA DEPARTMENT OF NATURAL RESOURCES
and with other
CITY, COUNTY, STATE, AND FEDERAL AGENCIES

Tallahassee, Florida

1974

CONTENTS

LOCATION AND GEOHYDROLOGIC SETTING

The Peninsula well is in Dade County, about 10 miles southwest of Miami (fig. 1). It is 2,927 feet deep and is cased to 1,810 feet (fig. 2). The land surface at the well is about 6 feet above msl (National Ocean Survey, mean sea-level datum 1929).

The local water supply is obtained from the Biscayne aquifer, a highly permeable limestone strata that underlies the area to a depth of about 100 feet. Beneath the Biscayne aquifer is a 300-foot thick confining bed composed of sand and clay, which confines the water in the underlying Floridan aquifer system. The Floridan is about 1,500 feet thick and is composed of several

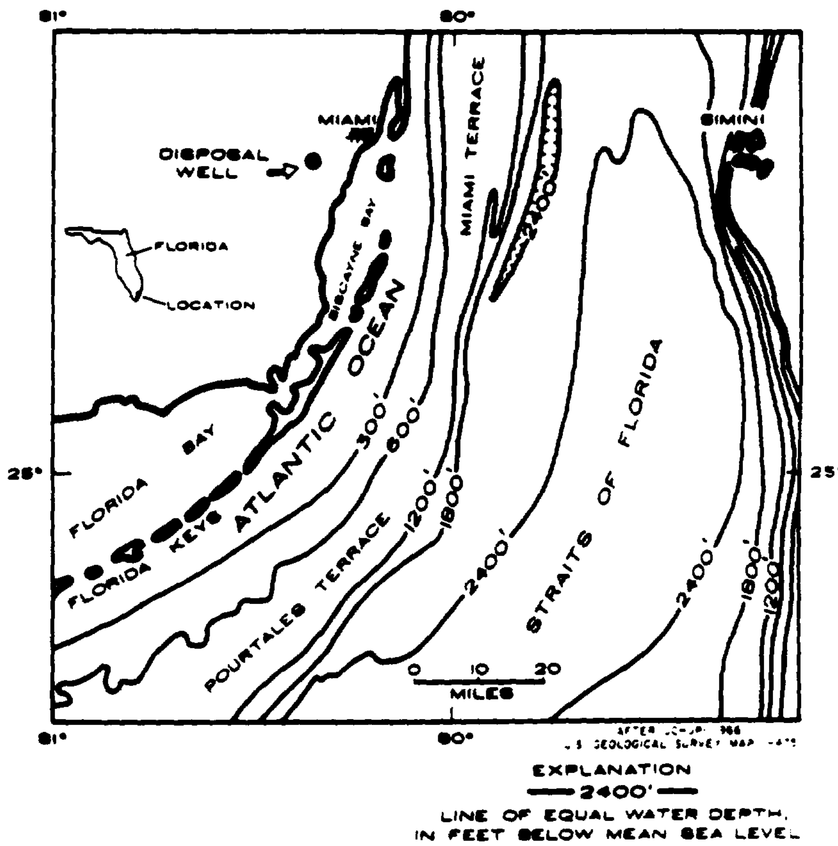


Figure 1 Map showing site location.

hydraulically separate water-bearing zones (Meyer, 1971). The upper 600-foot section is composed of limestone interbedded with calcareous clay and the lower 900-foot section (the principal water-bearing zone) is composed chiefly of highly permeable dolomitic limestone. The head and the salinity of the ground water increase with depth in the Floridan aquifer. Locally the head of the brackish water in the principal artesian water-bearing zone stands 41 feet above msl.

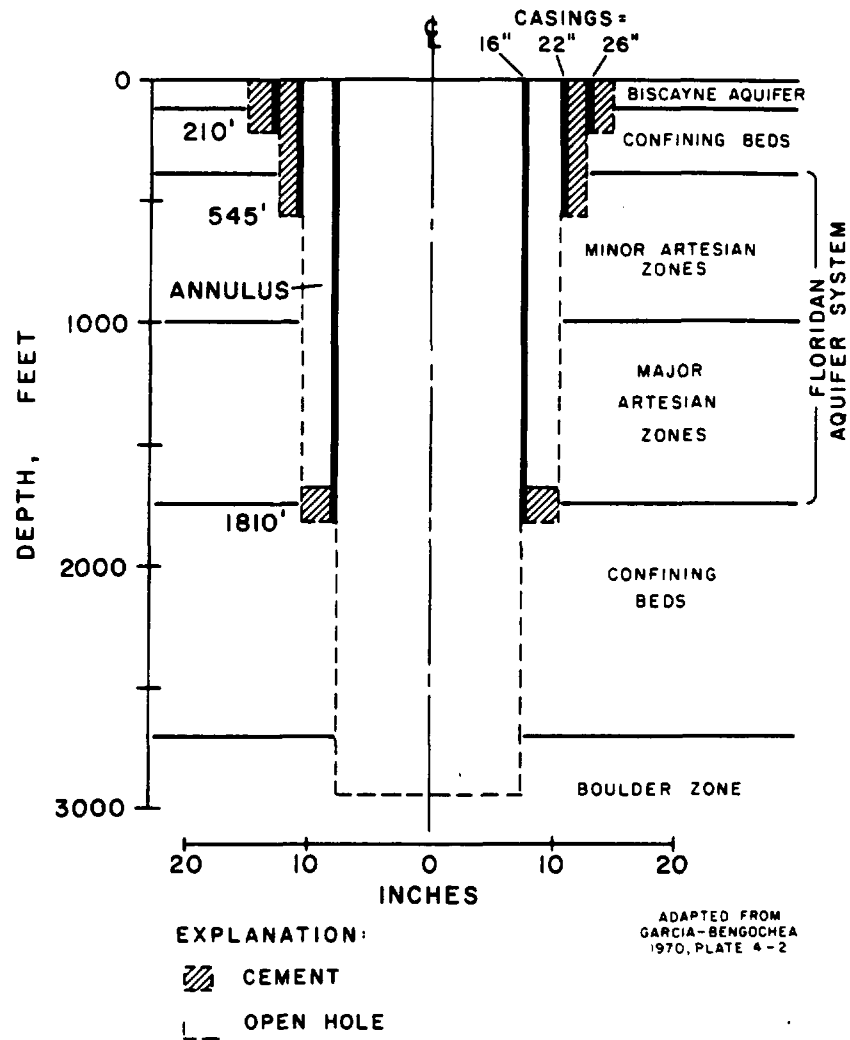
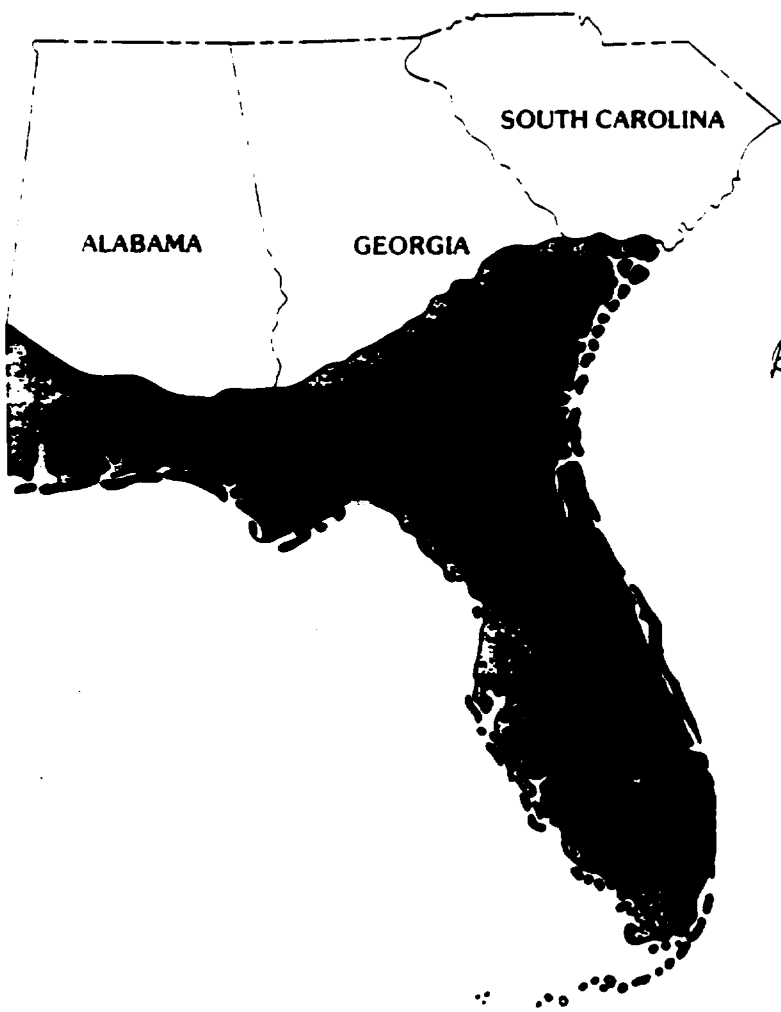


Figure 2 **Sketch showing well construction.**

Reference 14

SUMMARY OF THE HYDROLOGY OF THE FLORIDAN AQUIFER SYSTEM IN FLORIDA AND IN PARTS OF GEORGIA, SOUTH CAROLINA, AND ALABAMA



REF.

U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1403-A

TABLE 1.—*Terminology applied to the Floridan aquifer system*

SERIES/STAGE		PARKER AND OTHERS (1955)		SPRINGFIELD (1966)		MILLER (1982b, 1982d)		MILLER (1986)	
		Formations[1]	Aquifer	Formations[1]	Aquifer	Formations[1]	Aquifers	Formations[1]	Aquifers
MIOCENE		Hawthorn Formation	Where permeable	Hawthorn Formation		Hawthorn		Hawthorn	
		Tampa Limestone		Tampa Limestone		Tampa Limestone	Where permeable	Tampa Limestone	Where permeable
OLIGOCENE		Suwannee Limestone		Suwannee Limestone	Principal artesian aquifer	Suwannee Limestone		Suwannee Limestone	
EOCENE	Upper	Ocala Limestone	Floridan aquifer	Ocala Limestone		Ocala Limestone	Tertiary limestone aquifer system	Ocala Limestone	Floridan aquifer system
	Middle	Avon Park Limestone Lake City Limestone		Avon Park Limestone Lake City Limestone		Avon Park Limestone Lake City Limestone		Avon Park Formation	
	Lower			Oldsmar Limestone		Oldsmar Limestone		Oldsmar Formation	
PALEOCENE						Cedar Keys Limestone		Cedar Keys Formation	

[1] Names apply only to peninsular Florida and southeast Georgia except for Ocala Limestone and Hawthorn Formation.

greater than that of those rocks that bound the system above and below. As shown in table 1, the Floridan includes units of Late Paleocene to Early Miocene age. Locally in southeast Georgia, the Floridan includes carbonate rocks of Late Cretaceous age (not shown in table 1). Professional Paper 1403–B presents a detailed geologic description of the Floridan, its component aquifers and confining units, and their relation to stratigraphic units.

The top of the Floridan aquifer system represents the top of highly permeable carbonate rock that is overlain by low-permeability material—either clastic or carbonate rocks. Throughout much of the area, this upper confining unit consists largely of argillaceous material of the Miocene Hawthorn Formation (table 1). Similarly the base of the Floridan is that level below which there is no high-permeability rock. Generally the underlying low-permeability rocks are either fine-grained clastic materials or bedded anhydrite. These sharp permeability contrasts at the top and base of the Floridan commonly occur within a formation or a time-stratigraphic unit as described by Miller (1986).

AQUIFERS AND CONFINING UNITS

The Floridan aquifer system generally consists of an Upper Floridan aquifer and a Lower Floridan aquifer, separated by less-permeable beds of highly variable properties termed the middle confining unit (Miller, 1986, p. B53). In parts of north Florida and southwest Georgia, there is little permeability contrast within the aquifer system. Thus in these areas the Floridan is effectively one continuous aquifer. The upper and lower aquifers are defined on the basis of permeability, and their boundaries locally do not coincide with those of either time-stratigraphic or rock-stratigraphic units. The relations among the various aquifers and confining units and the stratigraphic units that form them are shown on plate 1, a fence diagram modified from Miller (1986, pl. 30). A series of structure contour maps and isopach maps for the aquifers as well as the seven principal stratigraphic units that make up the Floridan aquifer system and its contiguous confining units is presented in Professional Paper 1403–B. These maps and associated cross sections were prepared by Miller (1986) based on geophysical logs, lithologic descriptions of cores and cuttings, and faunal data for the stratigraphic units, plus hydraulic-head and aquifer-test data for the hydrogeologic units.

The fence diagram shows the Floridan gradually thickening from a featheredge at the outcrop area of Alabama-Georgia-South Carolina to more than 3,000 ft in southwest Florida. Its maximum thickness is about 3,500 ft in the Manatee-Sarasota County area of southwest Florida. In and directly downdip from much of the outcrop area, the Floridan consists of only one permeable unit. Further downdip in coastal Georgia and

Summary of the Hydrology of the Floridan Aquifer System in Florida and in Parts of Georgia, South Carolina, and Alabama

By RICHARD H. JOHNSTON *and* PETER W. BUSH

REGIONAL AQUIFER-SYSTEM ANALYSIS

U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1403-A

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1988

CONTENTS

ILLUSTRATIONS

[Plates are in pocket]

TABLES

much of Florida, the Upper and Lower Floridan aquifers become prominent hydrogeologic units where they are separated by less-permeable rocks.

Overlying much of the Floridan aquifer system are low-permeability clastic rocks that are termed the upper confining unit. The lithology, thickness, and integrity of this confining unit has a controlling effect on the development of permeability in the Upper Floridan and the ground-water flow in the Floridan locally. (See later sections on transmissivity and regional ground-water flow.)

Plate 2 shows where the Upper Floridan is unconfined, semiconfined, or confined. Actually the Upper Floridan rarely crops out, and there is generally either a thin surficial sand aquifer or clayey residuum overlying the Upper Floridan. Sinkholes are common in the unconfined and semiconfined areas and provide hydraulic connection between the land surface and the Upper Floridan. In the semiconfined and confined areas, the upper confining unit is mostly the middle Miocene Hawthorn Formation, which consists of interbedded sand and clay that are locally phosphatic and contain carbonate beds. In southwest Florida, the carbonate beds locally form aquifers. Professional Papers 1403–E and 1403–F discuss these local aquifers in detail.

There are two important surficial aquifers overlying the upper confining unit locally: (1) the fluvial sand-and-gravel aquifer in the westernmost Florida panhandle and adjacent Alabama and (2) the very productive Biscayne aquifer (limestone and sandy limestone) of southeast peninsular Florida. Both of these aquifers occur in areas where water in the Floridan is saline; hence they are important sources of freshwater.

The Upper Floridan aquifer forms one of the world's great sources of ground water. This highly permeable unit consists principally of three carbonate units: the Suwannee Limestone (Oligocene), the Ocala Limestone (upper Eocene), and the upper part of the Avon Park Formation (middle Eocene). Detailed local descriptions of the geology and hydraulic properties of the Upper Floridan are provided in many reports listed in the references and especially in the summary by Stringfield (1966). The hydraulic properties section of this report discusses the large variation in transmissivity (as many as three orders of magnitude) within the Upper Floridan. Professional Paper 1403–B discusses the geologic reasons for these variations.

Within the Upper Floridan aquifer (and the Lower Floridan where investigated) there are commonly a few highly permeable zones separated by carbonate rock whose permeability may be slightly less or much less than that of the high-permeability zones. Many local studies of the Floridan have documented these permeability contrasts, generally by use of current-meter traverses in uncased wells. For example, Wait and Gregg (1973) observed that wells tapping the Upper Floridan in the Brunswick, Ga., area obtained about 70 percent of their water from (approximately) the upper 100 ft of the Ocala Limestone and about 30 percent from a zone near the base of the Ocala. Separating the two zones is about 200 ft of less-permeable carbonate rock. Leve (1966) described permeable zones of soft limestone and dolomite and less-permeable zones of hard massive dolomite in the Upper Floridan of northeast Florida.

The Upper and Lower Floridan aquifers are separated by a sequence of low-permeability carbonate rock of mostly middle Eocene age. This sequence, termed the middle confining unit, varies greatly in lithology, ranging from dense gypsiferous limestone in south-central Georgia to soft chalky limestone in the coastal strip from South Carolina to the Florida Keys. Seven subregional units have been identified and mapped as part of the middle confining unit (see detailed descriptions in Professional Paper 1403–B). Much of the middle confining unit consists of rock formerly termed Lake City Limestone but referred to here as the lower part of the Avon Park Formation (table 1).

The Lower Floridan aquifer is comparatively less known geologically and hydraulically than the Upper Floridan. Much of the Lower Floridan contains saline water. For this reason and because the Upper Floridan is so productive, there is little incentive to drill into the deeper Lower Floridan in most areas. The Lower Floridan consists largely of middle Eocene to Upper Paleocene carbonate beds, but locally in southeast Georgia also includes uppermost Cretaceous carbonate beds. There are two important permeable units within the Lower Floridan: (1) a cavernous unit of extremely high permeability in south Florida known as the Boulder zone and (2) a partly cavernous permeable unit in northeast Florida and southeast coastal Georgia herein termed the Fernandina permeable zone. These units are further described in Professional Papers 1403–G and 1403–D, respectively.

Table 2 summarizes the geographic occurrence of aquifers and confining units within the Floridan aquifer system and shows the hydrogeologic nomenclature used in each Professional Paper. The units given in the table are hydraulic equivalents intended for use in describing and simulating the regional flow system. No stratigraphic equivalency or thickness connotation is intended in this table. For example, the Upper Floridan aquifer in the western Florida panhandle consists principally of the Suwannee (Oligocene) Formation. However, in central Florida the Ocala and Avon Park Formations constitute much of the high-permeability rock in the Upper Floridan.

Working Copy - **Reference 15**

NUS CORPORATION ***INTERNAL CORRESPONDENCE***

C-586-3-0-209

TO:	K. D. Pass, Florida Section Leader	**DATE:**	**March 22, 1990**
FROM:	W. Smitherman WS	**COPIES:**	Phil Blackwell Bob Donaghue Katharine Siders

SUBJECT: Municipal Water Systems for Broward County, Florida

Due to the large number of sites in Broward County to be assessed, I have assembled a data base for the municipal water systems in the county. Information was obtained during visits to the municipalities, telephone conversations and through the mail. Two basic documents were generated, the first being the data base (attached as Appendix A) to provide the system names, a principal contact to verify information, telephone numbers, addresses, the number of connections or population served, number of wells and wellfields and a remarks section. The second document is a detailed topographic map showing the extent of the municipalities' distribution system along with the location of their wells and wellfields. In addition to the topographic map, almost all the municipalities provided maps, showing their distribution areas along with the wells and wellfields, for additional reference if needed.

The topographic map will be available in a central location so that the project managers can locate their sites on the map. The project managers can then identify the systems (wellfields) within the 4-mile radius of their sites and use the data base to call up only those municipalities within the 4-mile radius that pertain to their sites.

In preparing this information, several interesting items were identified:

1. The city of Ft. Lauderdale provides potable water to the cities of Wilton Manor and Oakland Park, since they do not have wells.

2. The city of Coconut Creek purchases water from the Broward County Utility Dept. (BUCD)-2A wellfield. Coconut Creek does not have municipal wells.

3. The city of Coral Springs has 4 different systems within the city limits. Coral Springs Improvement District provides potable water to the southern third of the city. The city of Coral Springs provides water to the middle third of the city. Royal Utilities (a small area) and the North Springs Improvement District provides potable water to the northern third of the city.

4. Broward County Utility Department (BCUD) has 7 systems in the county; however, system BCUD 3C is off-line and potable water is provided by the city of Hollywood.

5. All systems in the county have emergency hook-ups with other municipalities, except the Royal Utilities in Coral Springs. This system has no emergency hook-up.

6. Several communities have multiple wellfields; in all cases the water is mixed in the distribution lines. The three systems for the city of Plantation are presented since the number of connections for each were available.

7. The depths of wells were not recorded on the data base, since all the wells are obtaining water from the Biscayne aquifer, a sole-source aquifer. However, information obtained during interviews revealed that most municipal wells ranged from 80-120 feet below land surface (bls).

8. In general, the distribution area for each municipality was normally the corporate city limits.

The objective of this memorandum was to gather the needed information into one source and to assist the project manager in obtaining the groundwater use data necessary to complete the site assessments in a timely manner. Bringing together all the municipal systems in the county into one data base and one map showing the locations should expedite this process. Any project managers wishing to access the data base should consult either you or me.

✓ = Distribution system on file at FIT

MUNICIPAL WATER SYSTEM
FOR BROWARD COUNTY, FL

03/28/90

SYSTEM	CONTACT PHONE	ADDRESS	(P)OP SERVED (C)ONNECTIONS	# OF WELLS	# OF FIELDS	DATE ENTERED	REMARKS
BCUD - 1A	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	10843 (C)	7	1	03/19/90	Emergency hookups with Ft. Lauderdale, Tamarac, and Lauderdale
BCUD - 1B	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	3397 (C)	5	1	03/15/90	In production 8 hrs/day, interconnect with BCUD-1A Emergency hookup with Ft. Lauderdale
[redacted]	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	[redacted]			03/15/90	Emergency hookups with Deerfield Beach
BCUD - 3A	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	5305 (C)	6	1	03/15/90	Emergency hookups with Dania, Ft. Lauderdale
BCUD - 3B	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	6207 (C)	4	1	03/15/90	Emergency hookups with Miramar and Hollywood
BCUD - 3C	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	3648 (C)	3	1	03/15/90	System OFF-LINE; Purchasing water from City of Hollywood
BROADVIEW	MIKE SCOTTIE (305)960-3051	BROWARD CTY UTIL DPT 2401 N POWERLINE RD POMPANO BEACH, FL 33064	2185 (C)	3	1	03/15/90	Emergency hookups with Tamarac and N. Lauderdale
BROADVIEW PARK W.D.	MIKE SCHWAB (305)583-4223	BROADVIEW PARK W.D. 1955 SW 50TH AVE PLANTATION, FL 33317	1800 (C)	1	1	03/19/90	Emergency hookups with Plantation
[redacted]	GARTH HINCKEL (305)973-6784	COCONUT CK WATER DPT 4800 W COPAND RD COCONUT CREEK, FL 33063	[redacted]			03/19/90	Potable water supplied by BCUD - 2A
COOPER CITY *Mailing out 3/28/90	GEORGE HACKNEY (305)434-5519	COOPER CITY UTIL 90 SW 50TH PLACE COOPER CITY, FL 33328	7500 (C)	6	2	03/15/90	Emergency hookups with Dania and Bonaventure

MUNICIPAL WATER SYSTEM
FOR BROWARD COUNTY, FL

03/28/90

SYSTEM	CONTACT PHONE	ADDRESS	(P)OP SERVED (C)ONNECTIONS	# OF WELLS	# OF FIELDS	DATE ENTERED	REMARKS
CORAL SPRGS IMPRM DS	CHUCK PERRON (305)753-0380	CORAL SPRGS IMPRM DS 10300 NW 11TH MANOR CORAL SPRINGS, FL 33071	30000 (P)	7	1	03/19/90	Emergency hookups with Coral Springs
CORAL SPRINGS	AL PAZIN (305)344-1172	CITY OF CORAL SPRING 9551 W SAMPLE RD CORAL SPRINGS, FL 33075	40000 (P)	12	1	03/19/90	Emergency hookups with Coral Springs and North Springs improvement Dist
DANIA	DON WINDHAM (305)921-7781	BERRY AND CALVIN INC 2 OAKWOOD BLVD ST120 HOLLYWOOD, FL 33020	4064 (C)	2	1	03/15/90	Additional potable water provided by BCUD, Ft. Lauderdale and Hollywood
DAVIE	DANIEL COLABELLA (305)797-1080	DAVIE WATER SYSTEM 6591 SW 45TH ST DAVIE, FL 33314	7000 (C)	16	2	03/19/90	Emergency hookups with Hollywood, Cooper City and Ft. Lauderdale
DEERFIELD BEACH	DALE HOLINBECK (305)480-4270	CITY OF DEERFIELD BC 150 NE 2ND AVE. DEERFIELD, FL 33441	10800 (C)	18	2	03/15/90	Emergency hookups with BCUD 2A, Hillsboro Bch and Boca Raton
FERNCREST UTILITIES	ROBERT SALERNO (305)989-6200	FERNCREST UTILITIES 3015 SW 54TH AVE. FT. LAUDERDALE, FL 33314	1600 (C)	2	1	03/15/90	Emergency hookups with Davie and Ft. Lauderdale
FT LAUDERDALE	JAMES SINDELAR (305)492-7858	FT LAUDERDALE UTIL P.O. BOX 14250 FT. LAUDERDALE, FL 33302	56000 (C)	43	2	03/15/90	Supply potable water to Wilton Manor, Oakland Park, BCUD, BC Port Auth, Dania and Tamarac East
HILLSBORO BEACH	RODNEY MAIN (305)941-8937	HILLSBORO BCH WATER 925 NE SAMPLE RD POMPANO BEACH, FL 33064	185 (C)	3	1	03/15/90	Emergency hookups with BCUD 2A, Deerfield Beach, Seasonal pop from 2300 - 3800
HOLLANDALE	MIKE GOOD (305)458-3251	DEPT OF PUBLIC WORKS 308 S DIXIE HWY HOLLANDALE, FL 33009	5500 (C)	2	1	03/15/90	6 wells shut down, salt-water intrusion. Additional water supplied by N. Miami
HOLLYWOOD	MARSHALL BERGAKER (305)921-3251	CITY OF HOLLYWOOD UT P.O.BOX 229045 HOLLYWOOD, FL 33022	130000 (P)	20	2	03/28/90	Supplies potable water to Dania. Emergency hookups with surrounding municipalities

MUNICIPAL WATER SYSTEM
FOR BROWARD COUNTY, FL

03/28/90

SYSTEM	CONTACT PHONE	ADDRESS	(P)OP SERVED (C)ONNECTIONS		# OF WELLS	# OF FIELDS	DATE ENTERED	REMARKS
* LAUDERHILL Sending Copy 3/26/90	JOHN SCHRIEFFER (305)739-0100	CITY OF LAUDERHILL 2000 CITY HALL DRIVE LAUDERHILL, FL 33313	8600	(C)	7	1	03/21/90	Emergency hookups with Plantation and Sunrise
MARGATE	RICK VAN ACKER (305)972-0828	MARGATE UTILITIES 1001 W RIVER DR MARGATE, FL 33063	23723	(C)	12	2	03/19/90	Emergency hookups with N. Lauderdale and Pompano Beach
MIRAMAR	LOU BADAMI (305)989-6200	MIRAMAR CITY HALL 6740 MIRAMAR PKWY MIRAMAR, FL 33083	12100	(C)	9	2	03/15/90	Emergency hookups with BCUD 3C and Pembroke Pine
NORTH LAUDERDALE	ED GOEBELS (305)722-0900	CITY OF N LAUDERDALE 701 SW 71ST AVE NORTH LAUDERDAE, FL 33068	6328	(C)	3	1	03/19/90	Emergency hookups with Tamarac, BCUD, and Margate
NORTH SPRGS IMPRM DS	CHUCK PERRON (306)753-0380	NORTH SPRGS IMPRM DS 10300 NW 11TH MANOR CORAL SPRINGS, FL 33071	5000	(P)	2	1	03/19/90	Emergency hookups with Coral Springs. Two (2) new wells due 6/90
OAKLAND PARK	ROLLAND SALSBERRY (305)561-6259	OAKLAND PARK UTIL 3650 NE 12TH AVE OAKLAND PARK, FL 3334	2700	(C)	0	0	03/15/90	Potable water supplied by City of Ft. Lauderdale
PEMBROKE PINES	DAVE MARTINEZ (305)435-6540	CITY OF PEMBROKE PNS 7960 JOHNSON ST PEMBROKE PINES, FL 33024	31581	(C)	8	2	03/15/90	Emergency hookups with Cooper City, Hollywood and Miramar
* PLANTATION CENTRAL	DUAINE WALLACE (305)797-2169	CITY OF PLANTATION 700 NW 91ST AVE PLANTATION, FL 33317	10043	(C)	10	1	03/23/90	Interconnected with Plantation East System
* PLANTATION EAST	DUAINE WALLACE (305)797-2169	CITY OF PLANTATION 500 NW 65TH AVE PLANTATION, FL 33317	9891	(C)	10	1	03/28/90	Emergency hookups with Ft. Lauderdale, Sunrise and Broward Park. Interconnected with Pltn Cntrl
* PLANTATION WEST Sending topo map 3/28/90	DUAINE WALLACE (305)797-2169	CITY OF PLANTATION 700 NW 91ST AVE PLANTATION, FL 33317	1336	(C)	0	0	03/23/90	Potable water supplied by Plantation Central

MUNICIPAL WATER SYSTEM
FOR BROWARD COUNTY, FL

03/28/90

SYSTEM	CONTACT PHONE	ADDRESS	(P)OP SERVED (C)ONNECTIONS	# OF WELLS	# OF FIELDS	DATE ENTERED	REMARKS
POMPANO BEACH	STAN LEMCKE (305)786-4105	POMPANO BCH PBLC WKS P.O.BOX 1300 POMPANO BEACH, FL 33061	16900 (C)	22	2	03/19/90	Emergency hookups with BCUD - 2A
ROYAL UTILITY Will call back. 3/28/90 pm to discuss	DOUGLAS BRIGHT (305)341-7565	ROYAL UTILITY CO 8900 NW 44TH COURT CORAL SPRINGS, FL 33065	173 (C)	3	1	03/19/90	No Emergency hookups -
SUNRISE	WALTER GERRARD (305)741-6570	CITY OF SUNRISE 4350 SPRINGTREE DR SUNRISE, FL 33351	29742 (C)	28	3	03/22/90	Emergency hookups with Plantation and Lauderhill
TAMARAC	LONNIE SCOTT (305)726-2300	TAMARAC UTILITIES 7805 NW 61ST ST TAMARAC, FL 33321	17074 (C)	13	1	03/19/90	Emergency hookups with BCUD -1A and Lauderhill
WILTON MANOR	JOE MOSS (305)390-2190	CITY OF WILTON MANOR 524 NE 21ST COURT WILTON MANOR, FL 33305	4500 (C)	0	0	03/15/90	Potable water supplied by city of Ft. Lauderdale

Reference 16

THURSDAY, APRIL 26, 1990, THE MIAMI HERALD

Road plan saves tortoise habitat

By CURTIS MORGAN
Herald Staff Writer

A yearlong debate over a Fort Lauderdale Executive Airport road that threatened a gopher tortoise haven all but ended Wednesday in a compromise as rare as the creature itself.

The solution pleased all sides — environmentalists and business people.

An access road that would have skirted the border of a 15.2-acre ridge of white sand covered with rare rosemary scrub providing a home to lizards, rodents and turtles can be rerouted, airport manager William Crouch Jr. told the Broward County Urban Wilderness Advisory Board on Wednesday night.

Elated board members, who had argued that the original road would have chewed up dunes and grasses that nourish the preserve's

PLEASE SEE GOPHER, 8BR

TURTLE TIDBITS

The gopher tortoise is a land turtle that can live to be 40 years old and grow as long as 14 inches. It is classified by Florida as a "species of special concern." It lives in deep underground sand burrows, which house three dozen species of animals, including the rare Florida gopher frog, the Florida mouse, the threatened Eastern indigo snake, the Florida pine snake and three kinds of beetles.

Other rare species on the site:

- The Florida scrub lizard, a rare reptile with iridescent blue belly scales.
- The large-flowered rosemary, a member of the mint family.
- Curtiss' milkweed, a threatened flowering perennial with leaves that resemble oak leaves.
- Bromeliads, scrub palmetto, spike moss and a variety of lichens.

Compromise road plan saves habitat of turtles

GOPHER, FROM 1BR

turtles, endorsed the design.

"You're talking about the environmental community and government and the private sector getting together to work out a solution," said David Utley, the board's vice chairman.

Airport authorities want the road to lead from Cypress Creek Road to an operations center, cargo gates and U.S. Customs Service office that will be built on the airport's north side. It also would improve access for emergency vehicles.

The road would have run about 600 feet north of the east-west runway, behind the Allied Signal Aerospace complex parallel to Cypress Creek Road. Under the original design, a section would have reached 50 feet into the preserve.

In May, over environmentalists' objections, the Fort Lauderdale City Commission approved the route but asked airport officials to continue to seek a compromise.

It came when Allied Signal agreed to allow the road to be built farther east in six acres it plans to develop. City engineers and airport staffers drew up a new design that actually will expand the turtle territory.

NF

REGION: 04
STATE : FL

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

RUN DATE: 02/24/86
RUN TIME: 09:07:13

M.2 - SITE MAINTENANCE FORM

* ACTION: _ *

EPA ID : FLD981026933

SITE NAME: ACME PLASTICS SOURCE: R * ____ _ *

STREET : 750 NW 57 CT. CONG DIST: 12 * ____ _ *

CITY : FT. LAUDERDALE ZIP: 33309 * ____ ____-____ *

CNTY NAME: BROWARD CNTY CODE : 011 * ____ _ *

LATITUDE : 26/11/36.0 LONGITUDE : 080/10/54.0 * __/__/__._ __/__/__._ *

LL-SOURCE: G LL-ACCURACY: * _ _ *

SMSA : 2680 HYDRO UNIT: 03090202 * ____ ____ *

INVENTORY IND: Y REMEDIAL IND: Y REMOVAL IND: N FED FAC IND: N * _ _ _ _ *

NPL IND: N NPL LISTING DATE: NPL DELISTING DATE: * _ __/__ __/__ *

SITE/SPILL IDS: * __ __ __ __ __ *

RPM NAME: RPM PHONE: - - * ____ ___-___-____ *

SITE CLASSIFICATION: SITE APPROACH: * __ __ *

DIOXIN TIER: REG FLD1: REG FLD2: * ___ ___ _ *

RESP TERM: PENDING ( ) NO FURTHER ACTION ( ) * PENDING (_) NO FURTHER ACTION (_) *

ENF DISP: NO VIABLE RESP PARTY ( ) VOLUNTARY RESPONSE ( ) * _ _ *
ENFORCED RESPONSE ( ) COST RECOVERY ( ) * _ _ *

SITE DESCRIPTION:

* ________ *
* ________ *
* ________ *
* ________ *

M.2 - PROGRAM MAINTENANCE FORM

* ACTION: _ *

SITE: ACME PLASTICS

EPA ID: FLD981026933 PROGRAM CODE: H01 PROGRAM TYPE: * _ *

PROGRAM QUALIFIER: ALIAS LINK : * ___ _ *

PROGRAM NAME: SITE EVALUATION * ______________________________ *

DESCRIPTION:

* ____ *

* ____ *

* ____ *

* ____ *

M.2 - EVENT MAINTENANCE FORM

* ACTION: _ *

SITE: ACME PLASTICS
PROGRAM: SITE EVALUATION

EPA ID: FLD981026933 PROGRAM CODE: H01 EVENT TYPE: DS1

FMS CODE: EVENT QUALIFIER : EVENT LEAD: S * _ ___ _ *

EVENT NAME: DISCOVERY STATUS: * ______________________________ _ *

DESCRIPTION:

* ____ *
* ____ *
* ____ *
* ____ *

ORIGINAL	CURRENT	ACTUAL				
START:	START:	START:	* __/__/__	__/__/__	__/__/__ *
COMP :	COMP :	COMP : 06/01/85	* __/__/__	__/__/__	__/__/__ *

HQ COMMENT:

* ____ *

RG COMMENT:

* ____ *

COOP AGR #	AMENDMENT #	STATUS	STATE %
			0

* __________ __________ __ ___ *

M.2 - EVENT MAINTENANCE FORM

* ACTION: _ *

SITE: ACME PLASTICS
PROGRAM: SITE EVALUATION

EPA ID: FLD981026933 PROGRAM CODE: H01 EVENT TYPE: PA1

FMS CODE: EVENT QUALIFIER : EVENT LEAD: S * _ ___ _ *

EVENT NAME: PRELIMINARY ASSESSMENT STATUS: * ______________________________ _ *

DESCRIPTION:

* ____ *
* ____ *
* ____ *
* ____ *

ORIGINAL	CURRENT	ACTUAL			
START:	START:	START: 01/21/86	* __/__/__	__/__/__	__/__/__ *
COMP :	COMP :	COMP : 02/10/86	* __/__/__	__/__/__	__/__/__ *

HQ COMMENT:

* ____ *

RG COMMENT:

* ____ *

COOP AGR #	AMENDMENT #	STATUS	STATE %
			0

* __________ __________ __ ___ *

M.2 - REGIONAL UTILITY MAINTENANCE FORM

SITE: ACME PLASTICS

EPA ID: FLD981026933

REG CODE: HSCS-01 * ACTION: _ *
DESCRIPTION: SOLVENTS (METHYL, ETHYL & KETONE) * ______ *
* ______ *
DATE1: * __/__/__ *
DATE2: * __/__/__ *
DATE3: * __/__/__ *
FREE FIELD: * ______ *

REG CODE: OPDU-01 * ACTION: _ *
DESCRIPTION: UNKNOWN DISPOSAL ON SITE * ______ *
* ______ *
DATE1: * __/__/__ *
DATE2: * __/__/__ *
DATE3: * __/__/__ *
FREE FIELD: * ______ *

REG CODE: 4C85-01 * ACTION: _ *
DESCRIPTION: CERCLA FY85 COOPERATIVE AGREEMENT * ______ *
* ______ *
DATE1: * __/__/__ *
DATE2: * __/__/__ *
DATE3: * __/__/__ *
FREE FIELD: * ______ *

M.2 - REGIONAL UTILITY MAINTENANCE FORM

SITE: ACME PLASTICS

EPA ID: FLD981026933

REG CODE: 4EWF-01 * ACTION: _ *

DESCRIPTION: EXECUTIVE WELL FIELD STUDY SITE * ______________________________ *

* ______________________________ *

DATE1: * __/__/__ *

DATE2: * __/__/__ *

DATE3: * __/__/__ *

FREE FIELD: * ________ *

REG CODE: 4HRN-01 * ACTION: _ *

DESCRIPTION: PRELIMINARY HRS NEEDED * ______________________________ *

* ______________________________ *

DATE1: * __/__/__ *

DATE2: * __/__/__ *

DATE3: * __/__/__ *

FREE FIELD: * ________ *

F.T.E.W.

ACME PLASTICS, INC.
FLD981026933
PRELIMINARY ASSESSMENT

A. SITE DESCRIPTION. Acme Plastics, Inc. was located in a commercial/industrial area at 750 NW 57th CT, Fort Lauderdale, Broward County, Florida. The facility was a manufacturer of plastic letters for the sign industry from at least 1974 to 1982. The Foam Factory is now located at this site.

B. DESCRIPTION OF HAZARDOUS CONDITIONS, INCIDENTS AND PERMIT VIOLATIONS. Acme Plastics, Inc. was a manufacturer of plastic letters for signs and the process involved injection molding. The plastics that were used were styrene, polypropylene and acrylics. Waste plastic was reused or baled for scrap resale. The injection molding presses required cooling water and hydraulic oil. Methyl ethyl ketone (MEK) was used during the manufacturing of the plastic until 1979. An industrial sludge survey, 5/19/81, stated that no waste is generated, and as of 3/18/82, the facility was given a non-source status. The Foam Factory is now located at this site, and there is no information available about this facility.

Cooling water for the injection molding presses was obtained from a closed loop supply and discharge well system. Both supply and discharge wells are 4 inches in diameter and 150 feet deep, with a maximum continuous flow of 10,000 GPD. On 11/10/81 water samples were taken from the system just before the discharge well. The results indicated that the facility was in compliance with groundwater discharge standards. The current status of the supply/discharge wells is unknown. No permit violations have been reported.

C. NATURE OF HAZARDOUS MATERIALS. The hazardous materials that were at the site were MEK which is volatile, reactive and flammable, styrene which is reactive and flammable, paint and oil.

D. ROUTES OF CONTAMINATION. Possible routes of contamination include drinking water, surface water, soils and groundwater used for irrigation and other purposes.

E. POSSIBLE AFFECTED POPULATION AND RESOURCES. Area residents are provided with drinking water from the City of Fort Lauderdale Executive/Prospect municipal wellfield. The wellfield draws from the Biscayne aquifer, which is a shallow, permeable, sole-source aquifer. The site is located 2000 feet east of the nearest wells, thus, potential contaminants in the groundwater may reach the wellfield.

F. RECOMMENDATIONS AND JUSTIFICATIONS. Acme Plastics, Inc. is no longer located at this site; the present site occupant is the Foam Factory. Acme Plastics was given a "non-source status" in March, 1982. There is no information available for the Foam Factory. A low priority for inspection is recommended at this facility; however, the status of the well system should be ascertained.

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: FL | 02 SITE NUMBER: D98102693[illegible]

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): Acme Plastics, Inc.
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 750 NW 57th CT
03 CITY: Fort Lauderdale
04 STATE: FL
05 ZIP CODE: 33309
06 COUNTY: Broward
07 COUNTY CODE: 011
08 CONG DIST: 17
09 COORDINATES: LATITUDE 26 12 15. | LONGITUDE 080 08 57.
10 DIRECTIONS TO SITE (Starting from nearest public road):
Proceed north on I-95 from Fort Lauderdale, exit onto Commercial Blvd; proceed west on Commercial Blvd. ¼ mile to Powerline Rd.; proceed north on Powerline 3000 feet to NW 57th CT.; proceed east on NW 57th CT, the site is the last building on the left.

III. RESPONSIBLE PARTIES

01 OWNER (if known): Acme Plastics, Inc.
02 STREET (Business, mailing, residential): 750 NW 57th CT
03 CITY: Fort Lauderdale
04 STATE: FL
05 ZIP CODE: 33309
06 TELEPHONE NUMBER: (305) 772-3720
07 OPERATOR (If known and different from owner): Frank Nickola - General Manager
08 STREET (Business, mailing, residential): Same
09 CITY: Fort Lauderdale
10 STATE: FL
11 ZIP CODE: 33309
12 TELEPHONE NUMBER: ( )
13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: ______ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: ______ (Specify) ☐ G. UNKNOWN
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION: ☒ YES ☐ NO DATE __/__/__ (MONTH DAY YEAR)
BY (Check all that apply): ☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☒ F. OTHER: Broward County Environmental (Specify)
CONTRACTOR NAME(S): Quality Control Board (BCEQCB)
02 SITE STATUS (Check one): ☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN
03 YEARS OF OPERATION: Pre-1974 (BEGINNING YEAR) | 1982 (ENDING YEAR) ☒ UNKNOWN
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Acme Plastics was a manufacturer of plastic letters for the sign industry. Methyl ethyl ketone, paint, styrene and oil were used in the manufacturing process.
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Methyl ethyl ketone (MEK) was used in the plastics manufacturing process. It is not known how much spent MEK was generated or the method of disposal. Rinsewater was discharged and drained into a storm sewer near the building in 1975.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☒ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT: Eric Nuzie Courtland S. Hill
02 OF (Agency/Organization): FDER
03 TELEPHONE NUMBER: (904) 488-0190
04 PERSON RESPONSIBLE FOR ASSESSMENT: Willard Murray
05 AGENCY: N/A
06 ORGANIZATION: E.C. Jordan Co.
07 TELEPHONE NUMBER: (207) 775-5401
08 DATE: 11/7/85 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

LRH

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D981026933

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [ ] A. SOLID
- [ ] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER ______ (Specify)
- [ ] E. SLURRY
- [x] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS Unknown

CUBIC YARDS Unknown

NO. OF DRUMS Unknown

03 WASTE CHARACTERISTICS (Check all that apply)

- [x] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [x] G. FLAMMABLE
- [ ] H. IGNITABLE
- [x] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [x] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			MEK was used at a rate of 2
OLW	OILY WASTE			gal./mo., styrene at 10,000
SOL	SOLVENTS	Unknown		lbs./mo., paint at 5 gal./mo.
PSD	PESTICIDES			and oil at 55 gal./yr.
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	Methyl ethyl ketone	78-93-3	Unknown	Unknown	
OLW	Styrene	100-42-5	Unknown	Unknown	
SLU	Paint	999	Unknown	Unknown	
OLW	Oil	8002-05-9	Unknown	Unknown	

V. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

BCEQCB industrial source investigation, 5/3/79

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: FL | 02 SITE NUMBER: D9810269

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ | 04 NARRATIVE DESCRIPTION

Rinsing of painted silk screens was done on-site in 1975, the rinsewater mixed with some paint waste and cleaner drained into the back alley to a storm sewer. Contaminants in this rinsewater may have contaminated the groundwater. No groundwater samples have been taken.

01 ☒ B. SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ | 04 NARRATIVE DESCRIPTION

The site is less than 1 mile south of Cypress Creek Canal. Potential contaminants in the groundwater may have reached nearby surface water. No surface water samples have been taken.

01 ☒ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 | 04 NARRATIVE DESCRIPTION

No file information is available regarding the present site occupant.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 | 04 NARRATIVE DESCRIPTION

No file information is available regarding the present site occupant.

01 ☒ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 | 04 NARRATIVE DESCRIPTION

No file information is available regarding the present site occupant.

01 ☒ F. CONTAMINATION OF SOIL | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: <0.5 (Acres) | 04 NARRATIVE DESCRIPTION

Possible spills of materials on-site or discharged rinsewater may have contaminated soil on-site. No soil samples have been taken.

01 ☒ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ | 04 NARRATIVE DESCRIPTION

Area residents are provided with drinking water from the Fort Lauderdale Executive/ Prospect Municipal Wellfield which produces from the shallow and permeable Biscayne aquifer. The site is located 2000 feet east of the nearest wells, and contaminants in the groundwater, may reach the Wellfield.

01 ☐ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: ______) | ☐ POTENTIAL | ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 0 | 04 NARRATIVE DESCRIPTION

Remote potential. The ACME facility is no longer active, thus, causing no potential for worker injury. However, no information is available for the current site occupant.

01 ☒ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: ______) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ | 04 NARRATIVE DESCRIPTION

Area residents may be exposed to hazardous substances via groundwater used for irrigation and other purposes, surface water,, drinking water and soils.

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: FL | 02 SITE NUMBER: D981026933

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Contact with contaminants may damage plant life. There have been no reports of damage to the grass and trees on-site.

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

Contact with contaminants may injure wildlife. However, the site is located in a highly populated commercial/industrial area largely devoid of wildlife.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Remote potential. The solvents that were used on-site do not generally bio-accumulate.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0
04 NARRATIVE DESCRIPTION

None reported.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported.

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: ______) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Rinsewater was discharged into an alley and drained into a storm sewer in 1975.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: ______) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None known.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 10,000+

IV. COMMENTS

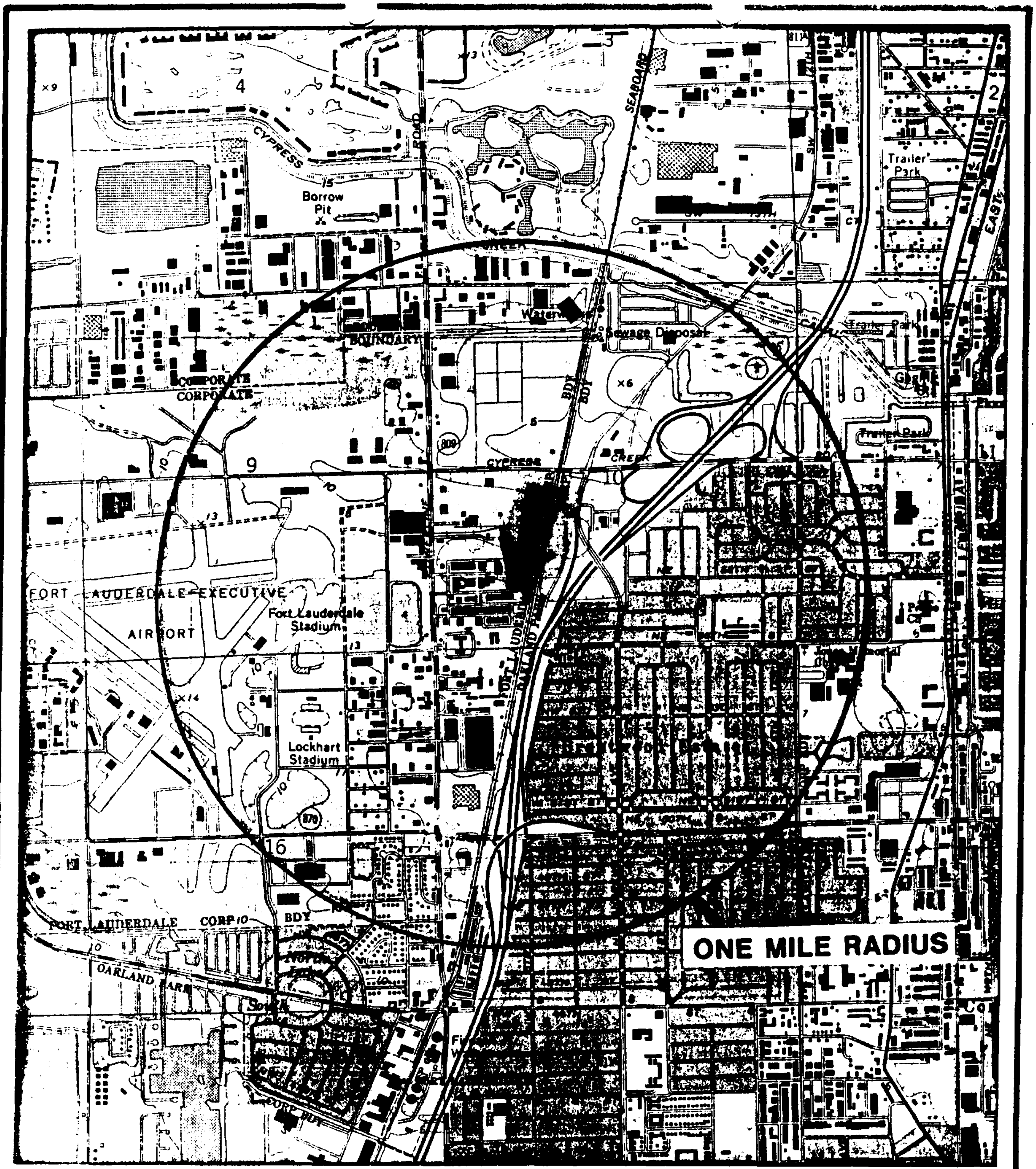
The facility was active from at least 1974 to 1982. Cooling water was obtained through a closed loop supply and discharge well system; current status of this well system is unknown. The site was declared a non-source status, 3/18/85.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

See attached reference list.

ATTACHMENT A
ACME PLASTICS, INC.
FLD981026933
ON-SITE INSPECTIONS

Date	Agency	Samples	Comments
7/30/85	E.C. Jordan Co. for FDER	No	Windshield survey (off-site inspection) found that Acme Plastics was no longer at the site.
7/20/82	FDER	No	No problems noted.
11/10/81	FDER	Yes	Groundwater discharge analysis, no problems noted.
5/19/81	FDER	No	Industrial sludge survey.
9/20/74 to 5/14/80	FDER	No	(15) Inspection Reports.



SCALE 1 : 24000

0 — 1/2 — 1 MILE

1000 — 0 — 1000 — 2000 FEET

N

SITE LOCATION MAP

Acme Plastic, Inc.

750 NW 57 Court

USGS QUAD Ft. Lauderdale North

DATE 1983

E.C.JORDAN CO.

REFERENCE LIST

1. Environmental Protection Agnecy, Federal Register, National Oil and Hazardous Substances Contingency Plan, Part V, July 16, 1982.

2. Farm Chemicals Handbook, Willoughby, OH; Meister Publishing Company, 1982.

3. Florida Department of Environmental Regulation, The Sites List, Summary Status Report, July 1, 1983 - June 30, 1984.

4. Florida Department of Environmental Regulation, 3012 Folder, 2600 Blairstone Road, Tallahassee, Florida. To be used for completion of Preliminary Assessment, Form 2070-12.

5. Florida Department of Natural Resources, Water Resources of Broward County, Report of Investigation No. 65, 1973.

6. Florida Division of Geology, Chemical Quality of Waters of Broward County, Florida, Report of Investigations No. 51, 1968.

7. Florida Geological Survey, Biscayne Aquifer of Dade and Broward Counties, Florida, Report of Investigation No. 17, 1958.

8. Florida Geological Survey, Groundwater Resources of the Oakland Park Area of Eastern Broward County, Florida, Report of Investigation No. 20, 1959.

9. Health and Safety Plan, Florida 3012 Program, E.C. Jordan Co., June 1984.

10. Healy, Henry G., 1977, Public Water Supplies of Selected Municipalities in Florida, 1975: U.S. Geological Survey, Water-Resources Investigations 77-53, p. 309.

11. NUS Project for Performance of Remedial Response Activities at Uncontrolled Hazardous Substance Facilities--Zone 1. NUS Corporation, Superfund Division.

12. NUS Training Manual, Project for Performance of Remedial Reponse Activities at Uncontrolled Hazardous Substance Facilities--Zone 1, NUS Corporation, Superfund Division.

13. Sax, N. Irving, Dangerous Properties of Industrial Materials, Sixth Edition, Van Nostrand Reinhold Co., 1984.

14. TLVs Threshold Limit Values for Chemical Substances in the Work Environment Adopted by ACGIH for 1983-84, American Conference of Governmental Industrial Hygienists, ISBN: 0-936712-45-7, 1983.

15. U.S. Geological Survey, Topographic Map, 1-24,000 Series.

16. Windholz, M., ed. The Merck Index, an Encyclopedia of Chemicals and Drugs, Rahway, NJ: Merck and Company, Inc., 1976.

OVERSIZED

DOCUMENT

MAP